

REPORT

OF THE

HEALTH OF LIVERPOOL,

DURING THE YEAR 1889,

WITH MAP, SHOWING THE LOCALITIES OF THE FATAL
PREVALENCE OF FEVER.

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LIVERPOOL:

J. R. WILLIAMS & CO., PRINTERS 8, SCHOOL LANE.

1890.

50010

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REPORT, 1889.



THE City and County of Liverpool contains an area of 5,210 acres, and a population of 606,562, or 116 per acre ; but if the area 733 acres occupied by the docks and quays, and which includes the entire river frontage, be deducted, the density of the city population is 135 persons per acre.

The injurious effects of this density is greatly increased by the rapid growth of the populations in what were a few years ago the rural suburbs of the city, but which are now converted into urban districts, from the borough of Bootle on the north to the Toxteths on the south. This pushing back as it were of the country from its proximity to the city boundaries deprives the inhabitants of the inestimable advantages of the healthful breezes so requisite for life, for the pure air cannot gain access to the city without being more or less polluted and devitalized by passing through large masses of population ; thus rendering it still more necessary to continue every effort for the removal of nuisances, and the extension of sanitary measures if the improved health of the people is to be maintained.

The number of deaths during the year was in excess of the previous year by 888, and occurred chiefly among children under five years of age. The increased number of deaths at that period of life being 851, and was caused by the prevalence of Measles, Scarlatina, and Diarrhoea.

The natural increase of the population by the excess of births over deaths was 4,629, and the estimated increase, calculated on the rate of increase between 1871 and 1881, was 6,824, which can be accounted for by the immigration of strangers.

The number of deaths and rate per 1,000 for the year were in—

First quarter 3,651, equal to 24·1 per 1,000.

Second „ 2,908, „ 19·2 „

Third „ 3,174, „ 20·9 „

Fourth „ 3,314, „ 21·9 „

The rate for the whole year was 21·5 per 1,000, being 1·2 higher than in the previous year (the lowest ever recorded up to that date), and 3·5 less than the average rate for the last ten years (1879 to 1888), and 7·6 less than the average of the previous ten years (1869 to 1878).

The deaths occurred at the following periods of life per 1,000 of the population in—

	1888.	1889.	Increase.	Decrease.
Below 1 year of age.....	5·0	5·5	0·5	...
Between 1 year and 5...	3·5	4·3	0·8	...
„ 5 years and 20	1·5	1·6	0·1	...
„ 20 years and 60	6·8	6·8	...	...
Above 60	3·5	3·3	...	0·2
At all ages.....	20·3	21·5	1·2	

The total number of deaths, including 221 who were resident outside the City, was 13,047, being 888 more than in 1888, and 1,170 less than the average of the previous ten years, notwithstanding the increase of population.

HOSPITAL ACCOMMODATION.

The want of sufficient hospital accommodation was severely felt in the autumnal months, when the usual increase of Scarlatina and Typhoid Fever took place. So full were the two hospitals, that it became necessary to use the Smallpox Hospital at Parkhill for convalescent patients, as many as 50 being located there at one time, besides cases of Smallpox.

Fortunately the Smallpox patients were few, and owing to the extent of the hospital grounds, it was found practicable to isolate them without communicating the disease to the convalescents; but it is a risk which ought not to be incurred, for the contagion of Smallpox is so readily carried by attendants and otherwise, that the slightest neglect of precautionary measures might precipitate a fearful outbreak.

The Workhouse Hospital in Brownlow Hill was closed against the admission of patients suffering from infectious disease, except paupers, on the 31st of December, 1888, but the Select Vestry, on the application of the Corporation, kindly allowed the wards to be used for Measles, as it was found impossible to provide accommodation for them either at Netherfield or Grafton Street Hospitals. The number of patients taken to Brownlow Hill was 116, and to the other hospitals 1,100.

If we should unfortunately be visited by an outbreak of epidemic disease, it would be, so far as hospital accommodation is concerned, quite impossible to control it, and the outlook is a most serious one for the health of the community.

ZYMOTIC DISEASE.

The deaths from Zymotic causes during the year were 2,363, being 567 more than in the previous year, and 280 below the average of the last ten years.

The increase was greatest in the following six diseases.

Disease.	1888.		1889.		Increase.
Measles	331	.....	485	.....	154
Scarlatina	187	.....	352	.....	165
Whooping Cough...	313	342	29
Diarrhœa	431	575	144
Fever	161	212	51
Croup	108	129	21
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SMALLPOX.

There were very few cases of this disease reported during the year, and, with the exception of one, they were all strangers arriving by ships or as emigrants. The exceptional case was a child in Fernhill Street, who died after a brief illness, but the origin or source whence the contagion was derived could not be ascertained. The Smallpox cases comprised five seamen, one passenger, and two emigrants, who were all taken to Parkhill Hospital.

The cases removed to the same hospital on suspicion, from having been in contact with smallpox patients, were four seamen, one woman, and a child.

MEASLES.

This disease became epidemic in the previous autumn, and continued during the winter, gradually declining with the genial weather of spring. In January 892 cases came under the notice of the Medical Officer, in February 486, in March 552, in April 307, in May 148, and in June 121. Only 104 of the whole number of patients were taken to hospital, though a much larger number would have been removed had there been any other accommodation for them than at the Workhouse Hospital.

The total number of cases reported was 3,175, and the number of deaths was 485, giving a mortality rate of 15·2 per cent. This high rate of mortality can only be accounted for by the large number of unreported cases, and not from any special malignancy of the epidemic.

The deaths of children under five years of age from lung diseases were much in excess of the average, and were 214 more than in the previous year, and may in a great measure be accounted for by the epidemic of Measles of which they would be the sequelæ.

SCARLATINA.

There was an increase in the number of cases from scarlatina, and at one period it appeared as if it would become epidemic; but it was fortunately controlled by the early isolation of a large number of patients in hospital, nearly one-third of the total cases reported being removed. The number of cases brought under the notice of the Medical Officer

was 1,832, including 352 deaths, which gave a mortality rate of 19·2 per cent. This high rate affords the strongest possible evidence that a very large number of cases were not reported, and taking as a guide the average death rate from this disease, there must have been at least 3,500 sufferers.

DIARRHŒA.

There was an increase of deaths during the year from Diarrhœa of 144 over the previous year, and 39 less than the average of the preceding ten years. As this disease is greatly influenced by meteorological conditions, it is desirable to ascertain if there were any variations likely to account for the increase. On previous occasions the comparison has been made between the year's observations taken at the Liverpool Observatory, and the average of 20 years' taken at Greenwich, but now, owing to the kindness of Mr. Hartnup, all the returns are compiled from observations taken at the local observatory. The following tables are sufficiently explanatory for the four months when infantile Diarrhœa is most prevalent:—

1889.

	Mean Barometer.		Mean Temperature.		Rainfall on Ground.		Deaths from Diarrhœa.
June.....	30·062	...	59·8	...	0·845	...	43
July	29·918	...	59·1	...	2·106	...	230
August	29·823	...	58·7	...	3·949	...	131
September	30·036	...	56·0	...	1·975	...	71

The average for the preceding 20 years:—

	Mean Barometer.		Mean Temperature.		Rainfall on Ground.
June	29·952	...	57·4	...	2·051
July	29·946	...	60·5	...	3·173
August	29·924	...	60·2	...	2·791
September	29·906	...	56·0	...	3·502

The temperature of June was 2·4 degrees above the average of 20 years, with a decrease 1·206 inches of rainfall; a condition favourable for the production of Diarrhœa, which was manifested principally in the following month of July, though the temperature was 1·4 below the average, with a rainfall of 1·067 inches decrease. In the following month the decrease of temperature was 1·5, and an increase of rain of 1·158 inches, when the prevalence of Diarrhœa gradually declined.

FEVER.

According to the returns made to the Registrar General, all forms of Fever are arranged under one head, inclusive of Typhus, Typhoid, and Febricula. There was a considerable increase in the number of cases during the year, chiefly of the Typhoid character, and the same appears to have been the case all over the country. More attention than ever was paid to the sanitary arrangements of houses and the cleansing and flushing of drains and sewers, and though sometimes, serious sanitary defects were discovered, the origin of many cases could not be ascertained.

Typhus is still present with us and also shown an increase. Whenever a case of this disease is found, immediate steps for its isolation are taken, otherwise from its contagious character the disease would rapidly spread.

The total number of cases reported to the Medical Officer during the year was 890, including 158 Typhus, 670 Typhoid, and 62 simple or continued Fever.

124 Typhus patients, 302 Typhoid, and 54 Simple were removed to hospital.

The total number of deaths registered was 212, comprising 45 from Typhus, and 167 from Typhoid. The rate of mortality of reported cases was 23·8 per cent. The increased mortality from Fever over the previous year, and the cessation of its gradual decline are shown in the following tables :—

1871.

Deaths from Typhoid	...	...	...	133
„ „ Typhus	...	...	...	568
				<hr/>
Total Fever Deaths	...	...		701

1875.

Deaths from Typhoid	...	...	...	104
„ „ Typhus ...	...	...	...	294
				<hr/>
Total Fever Deaths	...	...		398

1881.

Deaths from Typhoid	...	...	...	120
„ „ Typhus ...	...	...	...	172
				<hr/>
Total Fever Deaths	...	...		292

1886.

Deaths from Typhoid	...	...	...	140
„ „ Typhus ...	...	...	...	58
				<hr/>
Total Fever Deaths	...	...		198

1888.

Deaths from Typhoid	...	...	...	125
„ „ Typhus ...	...	...	...	36
				<hr/>
Total Fever Deaths	...	...		161

1889.

Deaths from Typhoid	...	...	...	167
„ „ Typhus ...	...	...	...	45
				<hr/>
Total Fever Deaths	...	...		212

The following table shows the death rate per 1,000 of the population, and the number of deaths from Fever and Diarrhœa during the last twenty-four years:—

Year.	Death Rate per 1,000 of Population.	Deaths from Diarrhœa.	Deaths from Fever.	Deaths from Relapsing Fever.
1866	41·7	1,145	1,523	...
1867	29·4	796	656	...
1868	29·1	1,108	841	...
1869	28·9	1,001	783	...
1870	31·1	1,151	572	355
1871	35·1	1,127	701	207
1872	27·0	998	451	25
1873	25·8	906	335	...
1874	31·9	879	449	...
1875	27·5	842	490	...
1876	27·5	694	398	...
1877	26·4	605	382	...
1878	29·3	979	375	...
1879	26·9	402	248	...
1880	27·2	1,028	256	...
1881	26·6	508	292	...
1882	26·4	587	593	...
1883	26·6	518	540	...
1884	25·1	841	205	...
1885	23·7	422	182	...
1886	23·7	781	198	...
1887	23·6	619	194	...
1888	20·3	431	161	...
1889	21·5	575	212	...

CANCER.

The number of deaths from this disease was not quite so many as last year, though shewing a considerable increase upon previous years. The following tables shew the gradual increase, and the localities of the body affected by it.

TABLE I.

Year.	Male.	Female.	Total.	Percentage of Deaths from Cancer to Total Deaths.	Death Rate per 1,000 of the Population from Cancer.
1869	42	124	166	1·1	0·34
1874	63	146	209	1·3	0·40
1879	86	175	261	1·8	0·48
1884	100	163	263	1·8	0·45
1888	111	206	317	2·6	0·52
1889	121	170	291	2·2	0·48

TABLE II.
DEATHS FROM CANCER DURING THE YEAR 1889.

DISEASE.	WARDS, &c.																	Males.	Females.	Total.
	WARDS, &c.																			
	Scotland.	Vauxhall.	St. Paul's.	Exchange.	St. Anne's.	Linne Street.	Castle Street.	St. Peter's.	Pitt Street.	Gt. George.	Rodney Street.	Abercromby.	Everton.	Kirkdale.	West Derby.	North Toxteth.	South Toxteth.	Hospitals.		
Cancer of Stomach and Bowels	8	1	..	..	..	..	..	1	2	3	4	13	10	8	11	11	26	46	52	98
" Liver .....	..	..	..	..	..	..	..	..	..	..	..	2	4	4	3	3	12	15	13	28
" Urinary and Generative Organs	6	1	1	..	3	..	..	1	..	1	..	13	5	4	6	3	19	8	55	63
" Breast	2	1	..	..	2	..	1	..	..	..	..	3	1	4	5	..	6	..	25	25
" Head and Face	1	..	1	..	..	..	..	..	..	..	..	2	..	..	2	1	6	10	4	14
" Tongue, Neck, and Throat	1	1	..	..	1	1	1	..	..	1	1	5	1	2	3	1	18	29	8	37
" Other parts of the Body .....	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	3	5	..	5
" (part not specified)	1	..	..	..	1	..	..	..	..	1	..	1	..	3	3	1	10	8	13	21
Total	19	4	2	..	7	1	..	2	2	6	6	39	22	26	33	20	100	121	170	291

During the fifty-two weeks of the year 1889 (terminating on Saturday, December 28th, 1889), the Returns of the Local Registrars recorded 17,676 births and 13,047 deaths within the City ; the numbers for the corresponding period of the previous year, 1888, were 17,777 births and 12,159 deaths.

Of the births 8,802 were males and 8,874 were females, making the total Birth-rate of the City equal to 29·1 per 1,000 ; the average of the previous ten years being 34·9.

The Distribution of the births in the different wards and districts of the City has been arranged in the following table :—

BIRTHS.

DISTRICTS AND WARDS.	1st Quarter.		2nd Quarter.		3rd Quarter.		4th Quarter.		An-nual.
	Male.	Fe-male.	Male.	Fe-male.	Male.	Fe-male.	Male.	Fe-male.	Births
Scotland	283	301	270	239	269	280	270	262	2174
Vauxhall	30	37	34	36	39	49	34	45	304
St. Paul's and Exchange . . .	47	54	53	59	43	40	31	37	364
St. Anne's and Lime Street . .	111	104	94	106	108	96	83	86	788
Castle Street and St. Peter's . .	15	14	17	9	19	11	9	8	102
Pitt Street and Gt. George . .	56	67	55	59	59	37	56	47	436
Rodney St. & Abercromby . .	149	156	135	120	139	121	95	105	1020
Everton	507	510	508	469	469	493	478	534	3968
Kirkdale	288	323	287	273	284	300	286	307	2348
West Derby	349	307	360	314	306	283	325	321	2565
The Toxteths	462	489	423	496	440	438	427	432	3607
City	2297	2362	2236	2180	2175	2148	2094	2184	17676

DEATHS.

Of the 13,047 deaths 6,516 were of males, and 6,531 of females.

The Death-rate of the City was equal to 21·5 per 1,000. The average of the previous ten years was 25·0 per 1,000.

The following table shows the actual number of deaths registered in the City previous to the transference to the districts from whence the patients were removed, of the deaths occurring in the Workhouses and Hospitals.

The deaths occurred in the following districts :—

DISTRICTS.	1st Quarter.		2nd Quarter.		3rd Quarter.		4th Quarter.		Annual.
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Deaths.
Scotland	183	219	140	138	188	192	205	217	1482
Vauxhall	30	24	20	23	27	31	32	37	224
St. Paul's and Exchange	60	59	35	28	28	40	39	41	330
St. Anne's and Lime Street	87	194	71	79	62	74	85	74	636
Castle Street and St. Peter's	12	13	14	11	12	14	12	12	100
Pitt Street and Great George	54	40	48	51	51	43	40	56	383
Rodney Street and Abercromby	68	104	61	57	73	70	73	72	578
Everton	290	311	249	246	247	306	250	285	2184
Kirkdale	151	150	137	145	156	169	162	163	1233
West Derby	204	210	143	129	180	176	177	182	1401
The Toxteths	299	338	258	277	245	274	234	294	2219
Workhouses and Hospitals	357	284	320	228	304	212	343	229	2277
City	1795	1856	1496	1412	1573	1601	1652	1662	13047

From the returns made as to the residences of persons dying in the Workhouses and Hospitals of the town, we are able to classify 1,975 of the deaths in these establishments under the Wards from whence the patients were removed, viz. :—420 under Scotland Ward, 95 under Vauxhall Ward, 55 under St. Paul's Ward, 71 under Exchange Ward, 280 under St. Anne's Ward, 69 under Lime Street Ward, 5 under Castle Street Ward, 23 under St. Peter's Ward, 69 under Pitt Street Ward, 92 under Great George's Ward, 61 under Rodney Street Ward, 98 under Abercromby Ward, 224 under Everton, 89 under Kirkdale, 173 under West Derby Ward, 75 under North Toxteth Ward, and 76 under South Toxteth Ward. This will leave unclassified 81 deaths of persons whose previous residences were either unknown or not specified ; and these, in the absence of definite information, have been placed in the Wards in proportion to the number of total deaths ; and 221 who were residents outside the city.

The results of the alterations occasioned by this re-arrangement of the deaths in the wards and districts will be shown in the following table, from which a calculated rate of mortality per 1,000 of the estimated inhabitants has been made. The rates are calculated upon a population increasing or decreasing in the same ratio as between 1871 and 1881, and may not be correct as regards the Wards, but will approximate the true rate of the whole City.

WARDS	Annual.	
	Deaths.	Rate per 100
Scotland	1914	30·3
Vauxhall	321	25·8
St. Paul's	221	22·6
Exchange	237	34·4
St. Anne's	750	31·7
Lime Street	242	26·3
Castle Street	25	26·3
St. Peter's	104	22·9
Pitt Street	242	36·2
Great George	306	35·4
Rodney Street	322	20·0
Abercromby	420	19·4
Everton	2423	19·9
Kirkdale	1330	15·5
West Derby	1584	19·4
North Toxteth	1299	14·8
South Toxteth	1086	23·6
Hospitals (Residences outside City)	221	—
	13047	21·5

The following table shows the natural increase or decrease of population, and the number of births and deaths during the year 1889, in the several districts of the City :—

DISTRICTS AND WARDS.	Births.	Deaths.	Increase.	Decrease
Scotland	2174	1914	260	..
Vauxhall	304	321	..	17
St. Paul's and Exchange	364	458	..	94
St. Anne's and Lime Street	788	992	..	204
Castle Street and St. Peter's	102	129	..	27
Pitt Street and Gt. George.. .. .	436	548	..	112
Rodney Street and Abercromby	1020	742	278	..
Everton	3968	2423	1545	..
Kirkdale	2348	1330	1018	..
West Derby	2565	1584	981	..
The Toxteths.. .. .	3607	2385	1222	..
City	17676	12826	4850	..
Hospitals (Residences outside City) .. .. .	..	221	..	..
Total.. .. .	17676	13047	4629	..

The following table, taken from the Registrar-General's Reports, will enable us to compare the mortality of Liverpool with thirty of the large towns of the United Kingdom:—

TOWNS.	Estimated Popula- tion in the middle of the year 1889.	Births in 52 Weeks, ending 28th Dec., 1889.	Deaths in 52 Weeks, ending 28th Dec., 1889.	Annual Rate to 1,000 of Population.		Population on Acre.
				Births.	Deaths.	
London	4351738	131487	75683	30·2	17·3	58·3
Brighton	121807	2965	1834	24·3	15·0	48·5
Portsmouth	141253	4945	2550	35·0	18·0	32·7
Norwich	94510	3184	1731	33·7	18·3	12·6
Plymouth	78225	2487	1964	31·8	25·1	53·3
Bristol	229361	6694	4022	29·2	17·5	49·5
Wolverhampton	82544	2666	1697	32·3	20·5	24·3
Birmingham	454835	14035	8485	30·9	18·6	54·1
Leicester	150520	4757	2540	31·6	16·8	47·0
Nottingham	237812	6636	4027	27·9	16·9	23·9
Derby	98529	2806	1607	28·5	16·3	28·6
Birkenhead	102541	3197	1820	31·2	17·7	26·6
Bolton	114670	3752	2517	32·7	21·9	47·7
Manchester	378800	13332	10088	35·2	26·6	63·9
Salford	234283	6993	4782	29·9	20·4	45·3
Oldham	142405	4030	2901	28·3	20·3	30·1
Blackburn	121275	4148	3077	34·2	25·4	17·4
Preston	104194	3959	3118	38·0	29·9	28·0
Huddersfield	92825	2275	1742	24·5	18·7	8·8
Halifax	81080	2263	1742	27·9	21·5	21·5
Bradford	235056	6272	4491	26·7	19·1	21·8
Leeds	357449	11706	7862	32·8	22·0	16·6
Sheffield	327227	10846	6802	33·2	20·8	16·7
Hull	208017	6759	4197	32·5	20·2	26·3
Sunderland	134193	4818	3059	35·9	22·8	44·3
Newcastle-on-Tyne	160983	6128	4042	38·1	25·1	30·0
Cardiff	112712	4340	2191	38·5	19·4	15·3
Edinburgh	266900	7389	4775	27·7	17·9	45·2
Glasgow	528144	19401	13064	36·8	24·7	86·4
Dublin	353082	9866	9053	27·9	25·6	14·3
LIVERPOOL	606562	17676	13047	29·1	21·5	116·4

The deaths of Infants below five years of age amounted to 5,921, and thus comprised 45·4 per cent. of the whole deaths ; the average number for the preceding ten years was 6,412, and the average percentage 45·0. The deaths of Infants below one year of age amounted to 3,320, or 18·8 per cent. of all the children born within the city, died before attaining the age of twelve months.

The first of the following tables shows the districts where Infantile Mortality was relatively and absolutely greatest, the second table illustrates the influence of age on the death-rate of the city, and the third table places, in one connected view, the pathological history of the death registry.

WARDS.		Quarters.				Annual.	Per Cent- age of Deaths under 5 years to Total Deaths.	Per Cent- age of Deaths under 1 year to Total Births.
		March.	June.	Sept.	Dec.			
Scotland	{ Total Deaths..	402	278	380	422	1482	} 57·6	21·8
	{ Below 5 years..	212	150	236	255	853		
Vauxhall	{ Total Deaths..	54	43	58	69	224	} 57·1	23·0
	{ Below 5 years..	29	22	29	48	128		
St. Paul's	{ Total Deaths..	48	38	36	43	165	} 48·5	24·5
	{ Below 5 years..	22	19	21	18	80		
Exchange	{ Total Deaths..	71	25	32	37	165	} 54·5	23·0
	{ Below 5 years..	42	11	21	16	90		
St. Anne's	{ Total Deaths..	139	114	103	109	465	} 51·6	16·7
	{ Below 5 years..	75	58	59	48	240		
Lime Street	{ Total Deaths..	52	36	33	50	171	} 49·1	19·7
	{ Below 5 years..	32	16	13	23	84		
Castle Street	{ Total Deaths..	5	5	5	5	20	} 35·0	15·8
	{ Below 5 years..	1	1	3	2	7		
St. Peter's	{ Total Deaths..	20	20	21	19	80	} 31·3	17·9
	{ Below 5 years..	7	7	6	5	25		
Pitt Street	{ Total Deaths..	39	48	42	42	171	} 49·1	15·3
	{ Below 5 years..	21	24	24	15	84		
Great George	{ Total Deaths..	55	51	52	54	212	} 43·9	16·8
	{ Below 5 years..	18	27	30	18	93		
Rodney Street..	{ Total Deaths..	71	56	62	70	259	} 39·0	46·4
	{ Below 5 years..	28	24	29	20	101		
Abercromby....	{ Total Deaths..	101	62	81	75	319	} 46·4	53·5
	{ Below 5 years..	51	29	36	32	148		
Everton..	{ Total Deaths..	601	495	553	535	2184	} 53·5	50·8
	{ Below 5 years..	299	245	355	269	1168		
Kirkdale	{ Total Deaths..	301	282	325	325	1233	} 50·8	17·1
	{ Below 5 years..	134	136	196	160	626		
West Derby	{ Total Deaths..	414	272	356	359	1401	} 53·1	14·6
	{ Below 5 years..	224	130	220	170	744		
North Toxteth..	{ Total Deaths..	338	273	294	311	1216	} 46·9	..
	{ Below 5 years..	151	119	166	134	570		
South Toxteth..	{ Total Deaths..	299	262	225	217	1003	} 54·5	..
	{ Below 5 years..	174	141	131	101	547		
Workhouses and Hospitals	{ Total Deaths..	641	548	516	572	2277	} 14·6	..
	{ Below 5 years..	114	67	79	73	333		
City	{ Total Deaths..	3651	2908	3174	3314	13047	} 45·4	18·8
	{ Below 5 years..	1634	1226	1654	1407	5921		

AGES.	Quarters.				Annual.	
	March.	June.	Sept.	Dec.	Deaths.	Rate per 1000 of population.
Deaths below 1 year of age.. ..	774	664	1123	759	3320	5.5
„ between 1 year and 5	860	562	531	648	2601	4.3
„ „ 5 „ 20	255	222	232	269	978	1.6
„ „ 20 „ 60	1140	1021	884	1100	4145	6.8
„ above 60 years	622	439	404	538	2003	3.3
„ at ages unknown .. ..	..	..	..	..	..	..
„ at all ages	3651	2908	3174	3314	13047	21.5

The Registrars' Returns show that there were 3 deaths (2 women and 1 man) above the age of 90, viz., 1 female at 93, 1 female at 95, and 1 male at 106.

CLASSES.	QUARTERS.				YEAR 1889.
	March.	June.	Sept.	Dec.	
1. Zymotic Diseases.. ..	673	461	749	480	2363
2. Diseases of Uncertain Seat	84	93	86	111	374
3. Tubercular Diseases	422	393	370	387	1572
4. Diseases of Brain, &c.	403	341	365	342	1451
5. „ of Heart, &c.	237	182	162	180	761
6. „ of Lungs, &c.	1006	649	398	931	2984
7. „ of Stomach, &c.	140	173	299	173	785
8. „ of Kidneys, &c.	61	71	65	85	282
9. Childbirth, Diseases of Uterus, &c.	30	37	23	32	122
10. Rheumatism, Diseases of the Joints, &c.	6	9	10	14	39
11. Diseases of the Skin, Cellular Tissue, &c.	20	7	17	13	57
12. Malformations	14	11	10	13	48
13. Premature Birth	50	69	78	58	255
14. Atrophy and Debility	185	159	250	179	773
15. Old Age	119	88	94	104	405
16. Privation, Cold, &c. .. ..	..	1	..	..	1
17. Inquests	192	148	174	180	694
Causes not specified	9	16	24	32	81
All Causes	3651	2908	3174	3314	13047
Total Zymotics	673	461	749	480	2363
Smallpox .. ..	..	..	..	1	1
Measles	313	87	23	62	485
Scarlatina	75	61	81	135	352
Whooping Cough	99	113	59	71	342
Diarrhœa	26	61	439	49	575
Fever {	10	14	7	14	45
	32	40	44	51	167

ZYMOTICS.

This class of diseases occasioned 2,363 deaths during the year 1889, and accounted for 18·1 per cent. of the total mortality within the City during the same period. The average number of deaths from these diseases for the preceding ten years was 2,643, and the percentage death rate for 1889 was 0·4 per cent. less than the proportional rate of zymotic deaths to deaths from all causes during the preceding decennial period. The following table shows the localities and the periods of their fatal prevalence :—

WARDS, &c.	Deaths from all Causes.	ZYMOTICS.				
		Quarters.				Per Centage of Zymotic Deaths to Deaths from all Causes.
		March.	June.	Sept.	Dec.	
Scotland	1482	67	40	87	68	17·7
Vauxhall	224	14	5	9	14	18·8
St. Paul's	165	7	1	7	8	13·9
Exchange	165	23	4	6	5	23·0
St. Anne's	465	26	14	19	9	14·6
Lime Street	171	12	6	4	7	17·0
Castle Street	20	..	2	1	1	20·0
St. Peter's	80	4	5	4	1	17·5
Pitt Street	171	7	13	22	2	25·7
Great George	212	8	11	12	4	16·5
Rodney Street	259	13	8	13	9	16·6
Abercromby	319	17	10	14	7	15·0
Liverpool Workhouse Hospital	1144	50	10	15	9	7·3
Royal Infirmary	107	..	1	..	2	2·8
Children's Infirmary	90	5	5	6	2	20·0
Lying-in Hospital	7	..	..	..	..	..
Hahnemann Hospital	18	..	..	..	1	5·6
Consumption Hospital	13	..	..	..	..	..
North Hospital	166	2	..	1	..	1·2
Hospital for Women	9	..	..	..	..	..
Stanley Hospital	81	..	..	..	..	..
Royal South Hospital	183	4	1	4	3	6·1
West Derby Union Hospital	272	1	..	..	1	0·7
City Hospital North, Netherfield Road	106	17	21	21	31	84·9
City Hospital South, Grafton Street	81	14	17	18	23	88·9
City Hospital, Park Hill .. .. .	..	..	..	..	..	..
Everton	2184	81	73	162	81	18·2
Kirkdale	1233	38	46	85	60	18·6
West Derby	1401	103	37	100	63	21·6
North Toxteth	1216	78	59	79	41	21·1
South Toxteth	1003	82	72	60	28	24·1
City	13047	673	461	749	480	18·1

FEVER.

Fever accounted for 212 deaths within the City of Liverpool, being an increase of 51 on the previous year. (The average number of deaths for the preceding ten years was 287.) The rate of its mortality was equal to 0·3 per 1,000 of the estimated population. Its percentage rate relatively to deaths from all causes was 1·2 during the first, 1·9 during the second, 1·6 during the third, and 2·0 during the fourth quarter of the year. Its annual rate relatively to deaths from all causes was 1·6 per cent., and relatively to deaths from zymotic causes 9·0 per cent. Its deaths included 100 males and 112 females; 79 persons below the age of 15; 65 between the ages of 15 and 30; and 68 above the age of 30.

Under the term Fever every form of continued fever is included; but the registers of deaths attribute 2 cases to gastric fever, 118 to typhoid fever, 47 to enteric fever, and 45 to typhus.

The following tables are in themselves sufficiently explanatory. The first compares the averages of deaths from fever during the preceding ten years with those during 1889; the second and third tables show the districts of the town and the periods of the year in which all forms of continued fever were most fatally prevalent; the fourth marks in streets the habitats of the disease, and the remaining tables the occupations and positions of its victims.

WARDS.	Exact Average of Fever Deaths for Pre- ceding Ten Years.	Deaths from Fever during the Year 1889.			
		Typhus.	Typhoid.	Other, or Doubtful.	Total.
Scotland.. .. .	24	1	14	..	15
Vauxhall	5	..	..	..	..
St. Paul's	4	..	4	..	4
Exchange	4	1	3	..	4
St. Anne's	7	..	2	..	2
Lime Street	2	..	4	..	4
Castle Street .. ..	..	..	..	..	..
St. Peter's .. ..	..	..	..	..	..
Pitt Street	1	..	3	..	3
Great George	2	..	1	..	1
Rodney Street	3	..	3	..	3
Abercromby	3	..	1	..	1
Everton	28	4	16	..	20
Kirkdale	18	2	15	..	17
West Derby	14	1	20	..	21
North Toxteth	16	2	10	..	12
South Toxteth	15	1	9	..	10
Hospital Deaths	141	33	62	..	95
Total	287	45	167	..	212

In the above table the averages have been calculated without making allowance for increase of population.

DEATHS FROM FEVER.

WARDS.		QUARTERS.												YEAR.			
		March.			June.			Sept.			Dec.			Typhus.	Typhoid.	Other, or Doubtful.	TOTAL
		Typhus.	Typhoid.	Other, or Doubtful.	Typhus.	Typhoid.	Other, or Doubtful.	Typhus.	Typhoid.	Other, or Doubtful.	Typhus.	Typhoid.	Other, or Doubtful.				
Scotland	{ Below 5 years ..	..	..	..	..	..	..	..	..	..	..	1	..	..	1	..	1
	{ Above 5 years ..	1	2	..	..	3	..	..	3	..	..	5	..	1	13	..	14
Vauxhall	{ Below 5 years ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	{ Above 5 years ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
St. Paul's	{ Below 5 years ..	..	..	..	..	..	..	..	..	..	..	1	..	..	1	..	1
	{ Above 5 years ..	..	1	..	..	..	..	..	..	..	..	2	..	..	3	..	3
Exchange	{ Below 5 years ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	{ Above 5 years ..	..	1	..	1	..	..	..	1	..	..	1	..	1	3	..	4
St. Anne's	{ Below 5 years ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	{ Above 5 years ..	..	..	..	..	1	..	..	1	..	..	..	..	..	2	..	2
Lime Street	{ Below 5 years ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	{ Above 5 years ..	..	..	..	..	1	..	..	1	..	..	2	..	..	4	..	4
Castle Street	{ Below 5 years ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	{ Above 5 years ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
St. Peter's	{ Below 5 years ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	{ Above 5 years ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Pitt Street	{ Below 5 years ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	{ Above 5 years ..	..	..	..	..	1	..	..	2	..	..	..	..	..	3	..	3
Great George	{ Below 5 years ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	{ Above 5 years ..	..	..	..	..	..	..	..	..	..	..	1	..	..	1	..	1
Rodney Street	{ Below 5 years ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	{ Above 5 years ..	..	..	..	..	..	..	..	..	..	..	3	..	..	3	..	3
Abercromby	{ Below 5 years ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	{ Above 5 years ..	..	..	..	..	1	..	..	..	..	..	..	..	..	1	..	1
Everton	{ Below 5 years ..	..	1	..	..	..	..	..	..	..	..	..	..	..	1	..	1
	{ Above 5 years ..	..	3	..	2	2	..	..	4	..	2	6	..	4	15	..	19
Kirkdale	{ Below 5 years ..	..	2	..	..	1	..	..	..	..	..	1	..	..	4	..	4
	{ Above 5 years ..	1	5	..	..	3	..	..	2	..	1	1	..	2	11	..	13
West Derby	{ Below 5 years ..	..	1	..	..	2	..	..	2	..	..	..	..	..	5	..	5
	{ Above 5 years ..	..	2	..	..	3	..	..	7	..	1	3	..	1	15	..	16
North Toxteth	{ Below 5 years ..	..	1	..	..	..	..	..	..	..	1	2	..	1	3	..	4
	{ Above 5 years ..	..	1	..	..	2	..	..	2	..	1	2	..	1	7	..	8
South Toxteth	{ Below 5 years ..	..	..	..	..	1	..	..	1	..	..	..	..	..	2	..	2
	{ Above 5 years ..	..	..	..	..	..	..	1	3	..	..	4	..	1	7	..	8
Hospitals	{ Below 5 years ..	..	..	..	..	..	..	..	3	..	..	2	..	..	5	..	5
	{ Above 5 years ..	8	12	..	11	19	..	6	12	..	8	14	..	33	57	..	90
City	{ Below 5 years ..	..	5	..	..	4	..	..	6	..	1	7	..	1	22	..	23
	{ Above 5 years ..	10	27	..	14	36	..	7	38	..	13	44	..	44	145	..	189

List of Streets in the City wherein Deaths from TYPHUS occurred during the Year 1889.

STREETS.	HOUSES.		Total.	STREETS.	HOUSES.		Total.
	Front.	Court.			Front.	Court.	
Bidder	1	..	1	Maddrell	2	..	2
Blandford .. ..	..	1	1	Mill	1	..	1
Burlington	1	4	5	Morland	1	..	1
Byrom	1	..	1	Northumberland Ter...	1	..	1
Christian	1	..	1	Orwell Road	1	..	1
Conway.. ..	1	..	1	Porter .. ..	..	1	1
Desmond	1	..	1	Prince William .. ..	..	1	1
Doncaster	1	..	1	Raymond	3	..	3
Dryden .. ..	..	1	1	Rectory.. ..	1	..	1
Edinburgh Road ..	1	..	1	Regent.. ..	1	..	1
Field	1	..	1	Rose Place .. ..	..	4	4
Finch Place .. .	1	..	1	St. Andrew .. ..	..	1	1
Grafton.. ..	2	..	2	Scotland Road.. ..	1	..	1
Harrowby	1	..	1	Slade .. ..	..	1	1
Lace	1	..	1	Stone .. ..	..	1	1
Latimer.. ..	1	..	1	Stonewall	1	..	1
Leyden	1	..	1	Turton	1	..	1

List of Streets in the City wherein Two or more Deaths from TYPHOID FEVER occurred during the Year 1889.

STREETS.	HOUSES.		Total.	STREETS.	HOUSES.		Total.
	Front.	Court.			Front.	Court.	
Bancroft .. ..	..	3	3	Hook	2	..	2
Barton	2	..	2	Hyslop	2	..	2
Chancel.. ..	4	..	4	Kew	1	1	2
Devonshire Place .	2	..	2	Leven	2	..	2
Dryden	3	..	3	Maynard	3	..	3
Gordon	2	..	2	Nesfield	2	..	2
Great Richmond ..	1	1	2	Phythian	2	..	2
Grove	3	..	3	St. James	1	1	2
Harbord	2	..	2	Tithebarn	1	1	2

Occupations of Persons who (either themselves or members of their family) have died from Fever in the Hospitals of the City, tabulated into Wards from whence they came, during the Year 1889.

CITY HOSPITAL NORTH (NETHERFIELD ROAD).

OCCUPATIONS.	WARDS.													Residence outside the City.	TOTAL.
	Scotland.	Vauxhall.	St. Paul's.	Exchange.	St. Anne's.	Lime Street.	Pitt Street.	Abercromby.	Everton.	Kirkdale.	West Derby.	North Toxteth.	South Toxteth.		
Labourers	4	1	1	..	3	1	1	..	7	..	4	3	1	..	26
Tradesmen	2	..	1	..	..	1	..	..	4	..	1	..	..	..	9
Seamen .....	..	..	..	..	1	..	..	..	..	1	1	..	..	1	4
Servants .. .. .	..	..	..	..	..	..	..	1	..	..	..	..	..	..	1
Professions and Mercantile	..	..	..	1	..	..	..	..	..	1	..	..	..	..	2
Unknown	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1
Males	3	..	2	..	3	1	1	..	4	..	3	2	..	1	20
Females	4	1	..	1	1	1	..	1	7	2	3	1	1	..	23
Total	7	1	2	1	4	2	1	1	11	2	6	3	1	1	43

CITY HOSPITAL SOUTH (GRAFTON STREET).

OCCUPATIONS.	WARDS.											TOTAL.
	Scotland.	Exchange.	St. Anne's.	Lime Street.	Gt. George.	Abercromby.	Everton.	Kirkdale.	West Derby.	South Toxteth.	Residence outside the City.	
Labourers	15	1	..	1	1	..	..	..	3	1	1	23
Tradesmen	2	1	1	..	..	1	..	..	..	1	..	6
Seamen	3	..	1	..	..	..	1	1	..	2	..	8
Nurses .. ..	..	..	..	..	..	..	..	..	..	2	..	2
Unknown .. ..	..	..	1	..	..	..	..	..	..	..	..	1
Males	11	2	..	..	1	1	..	1	3	2	1	22
Females	9	..	3	1	..	..	1	..	..	4	..	18
Total	20	2	3	1	1	1	1	1	3	6	1	40

* OTHER INSTITUTIONS.

OCCUPATIONS.	WARDS.						Residences outside the City.	TOTAL.
	Scotland.	St. Anne's	Lime Street.	Everton.	West Derby.	North Toxteth.	South Toxteth.	
Labourers .. .. .	..	1	1	..	1	1	1	5
Tradesmen	1	1	..	1	..	..	..	5
Seamen .. .. .	..	..	..	..	..	..	..	1
Servants .. .. .	..	..	..	..	..	..	..	1
Males	1	1	..	1	..	1	..	7
Females .. .. .	..	1	1	..	1	..	1	5
Total	1	2	1	1	1	1	1	12

* ROYAL INFIRMARY	2	} 12 deaths.
CHILDREN'S INFIRMARY	3	
NORTHERN HOSPITAL	2	
ROYAL SOUTHERN HOSPITAL	3	
PARISH HOSPITAL (BROWNLOW HILL)	2	

Occupations of Persons who (either themselves or members of their family) have died from Fever in the different Wards of the City during the Year 1889. (Not included in the foregoing Tables of Deaths in Hospitals.)

OCCUPATIONS.	WARDS.																	TOTAL.
	Scotland.	Vauxhall.	St. Paul's.	Exchange.	St. Anne's.	Lime Street.	Castle Street.	St. Peter's.	Pitt Street.	Great George.	Rodney Street.	Abercromby.	Everton.	Kirkdale.	West Derby.	North Toxteth.	South Toxteth.	
Labourers	10	..	..	2	2	..	..	..	1	..	..	..	9	9	6	5	4	48
Tradesmen	2	..	2	2	..	3	..	..	1	1	2	..	9	5	14	3	3	47
Professions and Mercantile	1	..	1	..	..	..	..	..	..	..	1	1	..	1	1	2	..	8
Seamen	2	..	1	..	..	1	..	..	1	..	..	..	1	2	..	2	2	12
Police Constables .. ..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	2
Males	4	..	2	1	..	3	..	..	1	..	1	1	9	8	10	5	6	51
Females	11	..	2	3	2	1	..	..	2	1	2	..	11	9	11	7	4	66
Total	15	..	4	4	2	4	..	..	3	1	3	1	20	17	21	12	10	117

SCARLATINA.

Scarlatina accounted during the year for 352 deaths. (The average number of deaths for the preceding ten years was 357). The rate of its mortality was equal to 0·6 per 1000 of the estimated population. Its rate relatively to deaths from all causes was 2·1 per cent. in the first quarter, 2·1 in the second, 2·6 in the third, and 4·1 in the fourth quarter of the year ; its annual rate relatively to all deaths was 2·7 per cent., and relatively to deaths from zymotic causes 14·9 per cent.

The first of the following tables gives a statistical history of the mortality of Scarlatina during the year 1889 ; the second is a record of the streets of the City wherein two or more deaths occurred from that disease.

WARDS.			QUARTERS.								YEAR.				
			March.		June.		Sept.		Dec.						
			M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Total.		
Scotland	{	Below 5 years	..	..	1	1	3	..	6	8	10	9	19
			{	Above 5 years	..	..	..	..	1	2	..	4	1	6	7
Vauxhall	{	Below 5 years	..	..	..	..	..	..	..	1	..	1	1
			{	Above 5 years	..	..	..	..	..	..	..	..	..	..	..
St. Paul's	{	Below 5 years	..	..	..	..	..	..	1	..	1	..	1
			{	Above 5 years	..	..	..	..	..	..	..	1	..	1	1
Exchange	{	Below 5 years	..	1	..	..	1	1	..	..	1	2	3
			{	Above 5 years	..	..	..	..	..	..	..	..	..	..	..
St. Anne's	{	Below 5 years	..	..	..	1	..	..	..	..	..	1	1
			{	Above 5 years	..	..	..	..	..	..	..	..	..	..	..
Lime Street	{	Below 5 years	..	..	..	..	..	..	..	..	..	..	..
			{	Above 5 years	..	..	..	1	..	..	..	..	..	1	1
Castle Street	{	Below 5 years	..	..	..	..	..	..	1	..	1	..	1
			{	Above 5 years	..	..	..	..	..	..	..	..	..	..	..
St. Peter's	{	Below 5 years	..	..	..	..	..	..	..	1	..	1	1
			{	Above 5 years	1	..	..	1	..	..	..	..	1	1	2
Pitt Street	{	Below 5 years	..	1	1	..	..	..	..	..	1	1	2
			{	Above 5 years	..	..	..	..	1	..	..	..	1	..	1
Great George	{	Below 5 years	..	..	..	..	1	..	..	..	1	..	1
			{	Above 5 years	..	..	..	..	..	..	..	1	..	1	1
Rodney Street..	{	Below 5 years	..	..	..	1	..	..	1	..	1	1	2
			{	Above 5 years	..	1	..	..	..	..	..	..	..	1	1
Abercromby	{	Below 5 years	..	2	..	..	..	..	..	..	..	2	2
			{	Above 5 years	1	..	..	..	..	..	..	..	1	..	1
Everton..	{	Below 5 years	4	1	2	2	1	4	4	5	11	12	23
			{	Above 5 years	1	..	..	..	2	1	3	3	6	4	10
Kirkdale	{	Below 5 years	..	2	3	4	2	2	7	4	12	12	24
			{	Above 5 years	1	..	..	2	1	3	4	5	6	10	16
West Derby	{	Below 5 years	7	1	1	2	3	4	10	10	21	17	38
			{	Above 5 years	4	3	..	1	..	1	2	6	6	11	17
North Toxteth..	{	Below 5 years	5	2	5	2	4	2	2	3	16	9	25
			{	Above 5 years	4	5	4	1	4	3	1	2	13	11	24
South Toxteth..	{	Below 5 years	2	5	4	6	5	2	1	2	12	15	27
			{	Above 5 years	5	..	1	4	1	5	1	1	8	10	18
Hospitals	{	Below 5 years	4	3	4	2	8	3	14	9	30	17	47
			{	Above 5 years	3	6	2	2	6	4	6	5	17	17	34
City	{	Below 5 years	22	18	21	21	28	18	47	43	118	100	218
			{	Above 5 years	20	15	7	12	16	19	17	28	60	74	134

List of Streets in the City wherein Two or more Deaths from
Scarlatina occurred during the Year 1889.

STREETS.	HOUSES.		Total.	STREETS.	HOUSES.		Total
	Front	Court.			Front.	Court.	
Adlington	1	1	2	Lowry	2	..	2
Ashfield	2	..	2	Mill	3	..	3
Barlow .. ..	..	3	3	Mitylene.. ..	2	..	2
Bessemer	3	..	3	Molyneux Road.. ..	4	..	4
Bittern	2	..	2	Moorgate	2	..	2
Boundary	2	..	2	Northbrook	2	..	2
Bower	2	..	2	Northumberland	2	.	2
Brewster.. ..	2	..	2	Ouse	2	..	2
Bridgewater	3	..	3	Paddington	3	..	3
Byles	3	..	3	Park Place	2	..	2
Candia	2	..	2	Ponsonby	2	..	2
Carmel	2	..	2	Romilly	2	..	2
Coltman	2	..	2	Rosebery.. ..	2	..	2
Denman . ..	5	.	5	Rose Vale	1	1	2
Devonport . ..	4	..	4	Royston	2	..	2
Duke	1	1	2	Rutter .. ..	..	2	2
Elaine . ..	2	..	2	Salop	3	..	3
Gaskell	2	..	2	Saltney	1	4	5
Gelling	5	..	5	Smithdown Lane	2	.	2
Gilbert	2	..	2	Stanley Road	3	..	3
Goldsmith	5	..	5	Sutcliffe	3	..	3
Grafton	1	2	3	Tay	3	..	3
Greig	2	..	2	Uxbridge	2	..	2
Hamilton Road.. ..	2	..	2	Vesuvius.. ..	2	..	2
Head	2	..	2	Viceroy	2	..	2
Hedley	3	..	3	Wellesley Terrace	2	..	2
Kensington	4	..	4	Wellington Road	2	..	2
Latimer	2	..	2				

MEASLES.

Measles occasioned 485 deaths. (The average number of deaths for the preceding ten years was 511.) Its percentage death-rate relatively to deaths from all causes was 8·6 in the first quarter of the year, 3·0 in the second, 0·7 in the third, and 1·9 in the fourth. Its annual percentage rate relatively to deaths from all causes was 3·7, and relatively to deaths from Zymotic causes 20·5.

WARDS.			QUARTERS.								YEAR.		
			March.		June.		Sept.		Dec.				
			M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Total.
Scotland ..	{	Below 5 years ..	18	17	2	6	2	1	11	2	33	26	59
		Above 5 years ..	2	..	..	..	..	..	1	..	3	..	3
Vauxhall ..	{	Below 5 years ..	3	6	..	..	..	..	2	3	5	9	14
		Above 5 years ..	..	1	..	..	..	..	..	..	..	1	1
St. Paul's ..	{	Below 5 years ..	2	1	..	..	..	..	1	..	3	1	4
		Above 5 years ..	..	..	..	..	..	1	..	..	..	1	1
Exchange ..	{	Below 5 years ..	10	6	..	..	..	..	..	..	10	6	16
		Above 5 years ..	1	1	..	..	..	..	..	..	1	1	2
St. Anne's ..	{	Below 5 years ..	5	7	3	2	..	2	..	2	8	13	21
		Above 5 years ..	..	1	..	..	..	..	..	..	..	1	1
Lime Street ..	{	Below 5 years ..	3	3	..	..	..	..	..	1	3	4	7
		Above 5 years ..	..	..	..	..	..	..	..	..	..	..	..
Castle Street ..	{	Below 5 years ..	..	..	..	..	..	..	..	..	..	..	..
		Above 5 years ..	..	..	..	..	..	..	..	..	..	..	..
St. Peter's ..	{	Below 5 years ..	..	2	1	..	..	..	..	..	1	2	3
		Above 5 years ..	..	..	..	..	..	..	..	..	..	..	..
Pitt Street ..	{	Below 5 years ..	2	2	..	4	..	..	..	..	2	6	8
		Above 5 years ..	..	..	..	..	..	..	..	..	..	..	..
Great George ..	{	Below 5 years ..	1	4	2	2	..	..	..	..	3	6	9
		Above 5 years ..	..	..	..	..	..	..	..	..	..	..	..
Rodney Street..	{	Below 5 years ..	3	3	1	1	..	..	..	..	4	4	8
		Above 5 years ..	..	..	..	..	..	..	..	..	..	..	..
Abercromby ..	{	Below 5 years ..	5	6	2	..	..	..	..	..	7	6	13
		Above 5 years ..	..	..	..	..	..	..	..	..	..	..	..
Everton ..	{	Below 5 years ..	13	13	1	3	2	2	9	9	25	27	52
		Above 5 years ..	..	2	..	..	..	..	2	3	2	5	7
Kirkdale ..	{	Below 5 years ..	5	3	1	2	1	..	4	3	11	8	19
		Above 5 years ..	..	..	..	..	..	..	..	..	..	..	..
West Derby ..	{	Below 5 years ..	16	16	3	1	..	..	6	..	25	17	42
		Above 5 years ..	1	3	..	..	1	..	..	2	2	5	7
North Toxteth ..	{	Below 5 years ..	21	18	5	7	3	4	..	..	29	29	58
		Above 5 years ..	2	4	1	1	..	..	..	..	3	5	8
South Toxteth..	{	Below 5 years ..	20	28	19	13	2	1	..	..	41	42	83
		Above 5 years ..	..	..	..	1	1	..	..	..	1	1	2
Workhouses and Hospitals ..	{	Below 5 years ..	16	16	..	3	..	..	1	..	17	19	36
		Above 5 years ..	1	..	..	..	..	..	..	..	1	..	..
City	{	Below 5 years ..	143	151	40	44	10	10	34	20	227	225	4
		Above 5 years ..	7	12	1	2	2	1	3	5	13	20	..

DIARRHŒA.

Diarrhœa accounted for 575 deaths. (The average number of deaths for the preceding ten years was 614). Its percentage death-rate relatively to deaths from all causes was 0·7 in the first quarter of the year, 2·1 in the second, 13·8 in the third, and 1·5 in the fourth quarter. Its annual percentage rate relatively to deaths from all causes was 4·4, and relatively to deaths from Zymotic causes 24·3.

WARDS.			QUARTERS.								YEAR.		
			March.		June.		Sept.		Dec.				
			M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Total.
Scotland	..	{ Below 5 years ..	..	1	7	3	26	24	4	5	37	33	70
	..	{ Above 5 years ..	..	1	1	2	2	2	..	..	3	5	8
Vauxhall	..	{ Below 5 years ..	1	..	1	..	5	1	3	..	10	1	11
	..	{ Above 5 years ..	..	..	..	..	..	..	..	..	..	..	..
St. Paul's	..	{ Below 5 years ..	..	..	..	..	1	3	..	..	1	3	4
	..	{ Above 5 years ..	..	..	..	..	..	..	..	..	..	..	..
Exchange	..	{ Below 5 years ..	..	..	..	1	1	1	1	2	2	4	6
	..	{ Above 5 years ..	..	..	..	..	..	..	..	..	..	..	..
St. Anne's	..	{ Below 5 years ..	1	..	..	..	9	3	1	1	11	4	15
	..	{ Above 5 years ..	..	..	..	..	..	..	..	..	..	..	..
Lime Street	..	{ Below 5 years ..	..	..	..	1	1	1	2	1	3	3	6
	..	{ Above 5 years ..	..	..	..	..	..	..	..	..	..	..	..
Castle Street	..	{ Below 5 years ..	..	..	..	..	..	..	..	..	..	..	..
	..	{ Above 5 years ..	..	..	..	..	..	..	..	..	..	..	..
St. Peter's	..	{ Below 5 years ..	1	..	..	1	1	..	..	..	2	1	3
	..	{ Above 5 years ..	..	..	..	..	..	..	..	..	..	..	..
Pitt Street	..	{ Below 5 years ..	..	..	..	..	6	5	1	..	7	5	12
	..	{ Above 5 years ..	..	..	..	1	..	2	..	..	..	3	3
Great George	..	{ Below 5 years ..	..	..	1	..	3	5	..	..	4	5	9
	..	{ Above 5 years ..	..	..	..	..	..	..	..	..	..	..	..
Rodney Street..	..	{ Below 5 years ..	1	..	..	..	5	5	..	..	6	5	11
	..	{ Above 5 years ..	..	..	..	..	..	..	..	1	..	1	1
Abercromby	..	{ Below 5 years ..	..	..	1	..	6	2	..	..	7	2	9
	..	{ Above 5 years ..	..	1	..	..	1	..	..	..	1	1	2
Everton	..	{ Below 5 years ..	5	1	8	4	53	60	3	3	69	68	137
	..	{ Above 5 years ..	..	..	..	1	1	2	1	1	2	4	6
Kirkdale	..	{ Below 5 years ..	..	..	5	2	24	25	1	2	30	29	59
	..	{ Above 5 years ..	..	..	2	..	1	2	..	..	3	2	5
West Derby	..	{ Below 5 years ..	3	4	6	2	43	25	2	3	54	34	88
	..	{ Above 5 years ..	..	..	..	..	2	..	..	1	2	1	3
North Toxteth	..	{ Below 5 years ..	2	1	3	1	14	22	2	1	21	25	46
	..	{ Above 5 years ..	..	..	1	1	4	..	..	1	5	2	7
South Toxteth	..	{ Below 5 years ..	..	1	1	1	14	13	2	1	17	16	33
	..	{ Above 5 years ..	..	..	..	1	2	..	..	..	2	1	3
Workhouses and to Hospitals	..	{ Below 5 years..	..	1	..	..	1	5	2	..	3	6	9
	..	{ Above 5 years..	..	1	..	2	2	3	1	..	3	6	9
1, 7	..	{ Below 5 years..	14	9	33	16	213	200	24	19	284	244	528
2.	..	{ Above 5 years..	..	3	4	8	15	11	2	4	21	26	47

List of Streets in the City wherein Three or more Deaths from
Diarrhœa occurred during the Year 1889.

STREETS.	HOUSES.		Total.			STREETS.	HOUSES.		Total.
	Front.	Court.					Front	Court.	
Arkwright	2	1	3			Hughes	3	..	3
Beatrice	3	..	3			Lamport	3	..	3
Beaufort	4	..	4			Mann	2	2	4
Blandford . . .	3	1	4			Mill	4	1	5
Boaler	3	..	3			Mozart	4	..	4
Boundary	1	2	3			Park	4	..	4
Buckingham	3	..	3			Penton	4	..	4
Burlington	3	2	5			Phythian	4	..	4
China	4	..	4			Prince Edwin .. .	2	5	7
Dalrymple	3	..	3			Rembrandt .. .	3	..	3
Falkner	2	1	3			Rose Vale	1	3	4
Friar	4	..	4			Salisbury	3	2	5
Gordon	3	..	3			Silvester.. ..	2	1	3
Grafton	2	1	3			Upper Beau	3	..	3
Great Howard	4	...	4			Upper Frederick ..	5	3	8
Hankin	2	1	3			Vauxhall Road ..	2	2	4
Hornby	1	5	6						

DIARRHOEA IN DATES OF DEATH, 1889.

DATE. June.	No. of Deaths.	Mean Reading of Barometer.	Mean Tempe- rature.	RAIN.		Mean Daily Velocity in Miles	WIND. DIRECTION.
				Amount in Inches.	Hours.		
1	..	29·824	61·9	0·101	1·7	428	SSE
2	1	29·717	64·1	0·501	4·6	245	SE
3	1	29·842	59·8	..	..	190	WNW
4	..	30·238	59·9	..	..	196	NW
5	..	30·428	57·6	..	..	178	NW
6	1	30·198	62·4	..	..	177	NE & NW
7	..	30·107	58·1	..	..	396	WNW
8	..	29·962	56·9	0·157	6·3	204	NW
9	..	29·750	55·0	..	..	250	NW
10	..	29·898	53·1	..	..	460	NE
11	3	29·944	57·0	..	..	184	NE & NW
12	4	29·929	57·7	..	..	164	NW
13	3	29·905	60·8	0·027	1·1	239	W
14	..	29·910	57·7	0·059	1·2	219	SW
15	..	30·003	54·6	..	..	142	NW
16	..	30·140	57·2	..	..	238	NW
17	1	30·214	61·0	..	..	145	NW
18	1	30·214	61·6	..	..	151	SE & NW
19	1	30·173	58·4	..	..	351	E
20	1	30·122	62·9	..	..	256	E
21	3	30·108	64·6	..	..	231	ESE
22	2	30·116	60·0	..	..	215	W
23	3	30·098	59·4	..	..	300	ESE
24	2	30·068	61·1	..	..	209	ESE
25	2	30·105	63·1	..	..	251	SE
26	1	30·113	65·8	..	..	192	NW & SE
27	2	30·086	61·2	..	..	233	WNW
28	3	30·095	60·0	..	..	239	WNW
29	3	30·247	60·9	..	..	233	W
30	5	30·320	59·5	..	..	418	W

DIARRHŒA IN DATES OF DEATH, 1889.

DATE. July.	No. of Deaths.	Mean Reading of Barometer.	Mean Tempe- rature.	RAIN.		WIND.	
				Amount in Inches.	Hours.	Mean Daily Velocity in Miles	DIRECTION.
1	6	30·456	59·1	..	..	435	WNW
2	6	30·400	57·8	..	..	278	W
3	5	30·302	61·6	..	..	240	E
4	3	30·213	65·1	..	..	273	E
5	4	30·217	63·2	..	..	203	E
6	7	30·035	61·3	0·048	1·4	343	W
7	8	29·756	53·4	..	..	567	W
8	6	29·788	56·4	..	..	269	NW
9	9	29·758	60·5	0·079	3·9	374	SE
10	9	29·611	61·2	0·157	2·8	314	W
11	7	29·894	61·0	..	..	329	WNW
12	10	30·011	61·3	0·231	4·6	178	NNE
13	6	29·953	57·7	0·106	4·0	280	E
14	5	29·903	56·8	0·019	0·7	345	WNW
15	6	29·808	56·2	0·139	3·4	609	W
16	12	29·794	56·7	0·084	2·1	455	W
17	10	29·852	57·8	0·017	0·6	373	WNW
18	17	29·945	53·7	..	..	482	WNW
19	4	29·878	57·7	0·007	0·5	214	WNW
20	9	29·653	58·8	0·184	3·9	376	SSE
21	6	29·541	56·4	0·401	6·4	420	W
22	6	29·780	57·5	..	..	597	WSW
23	10	29·729	56·7	0·081	2·2	178	SSW
24	8	29·698	54·8	0·520	9·5	242	S
25	7	29·496	56·6	..	..	582	W
26	10	29·735	58·9	..	..	503	NW
27	9	29·951	58·6	..	..	565	W
28	4	30·045	59·5	0·033	2·6	248	W
29	9	30·108	58·3	..	..	168	WNW
30	5	30·105	69·0	..	..	192	SE
31	7	30·034	68·0	..	..	337	SSE

DIARRHŒA IN DATES OF DEATH, 1889.

DATE. August.	No. of Deaths.	Mean Reading of Barometer.	Mean Tempe- rature.	RAIN.		Mean Daily Velocity in Miles.	WIND.
				Amount in Inches.	Hours.		DIRECTION.
1	6	29·947	62·6	0·034	1·3	165	SW
2	4	29·858	61·9	0·390	7·3	368	SW
3	3	29·699	61·4	0·011	0·9	525	SW
4	7	29·898	62·0	0·224	3·7	276	WNW
5	5	29·638	60·6	0·102	2·6	343	W
6	4	29·616	58·3	0·181	5·6	691	W
7	7	29·928	59·4	..	..	497	W
8	4	30·035	59·7	0·078	3·2	198	W
9	4	29·804	56·4	0·309	2·7	280	W & SSE
10	3	29·658	58·1	0·180	4·0	232	SW & SE
11	4	29·570	57·8	0·072	1·5	213	NNW
12	2	29·829	57·9	..	..	401	NNW
13	5	29·993	57·7	0·088	1·9	512	WNW
14	8	29·790	58·8	0·167	4·2	429	WSW
15	2	29·793	61·4	..	..	547	W
16	2	29·857	62·6	0·120	3·2	418	WSW
17	6	29·717	58·8	..	..	591	WSW
18	3	29·869	59·8	..	..	365	WSW
19	3	29·610	58·5	0·496	8·4	285	SE
20	3	29·291	55·7	0·071	2·7	746	W & SE
21	3	29·316	56·7	0·430	4·2	325	SSE & WSW
22	5	29·490	55·6	0·035	1·0	748	WNW
23	3	29·858	54·5	0·818	5·7	801	W
24	7	29·796	54·5	0·122	2·5	491	W
25	5	29·855	56·3	0·021	0·9	621	W
26	2	30·068	56·9	..	..	556	WNW
27	4	30·179	56·7	..	..	425	W
28	3	30·086	60·2	..	..	487	SW
29	7	30·117	59·5	..	..	247	SW
30	4	30·143	62·0	..	..	173	NW & SE
31	3	30·198	58·3	..	..	172	WNW

DIARRHŒA IN DATES OF DEATH, 1889.

DATE. Sept.	No. of Deaths.	Mean Reading of Barometer	Mean Tempe- rature.	RAIN.		WIND.	
				Amount in Inches.	Hours.	Mean Daily Velocity in Miles.	DIRECTION.
1	2	30·183	58·2	..	..	303	SE
2	4	30·052	62·4	0·021	0·8	452	ESE
3	1	30·041	58·7	0·034	2·5	152	E
4	4	30·175	60·5	..	..	123	NNW
5	2	30·268	62·2	..	..	108	WNW
6	4	30·305	58·5	..	..	260	SE
7	5	30·203	58·4	..	..	272	SE
8	1	30·091	60·3	..	..	279	SE
9	4	30·071	61·3	..	..	224	S
10	2	30·140	65·1	.	..	225	SE
11	2	30·092	65·2	0·042	2·5	245	SE & SW
12	3	30·183	64·1	..	..	261	W & V _{AR}
13	1	30·243	59·0	0·018	1·6	447	W
14	2	30·370	53·5	..	..	231	E & WNW
15	1	30·456	52·8	..	.	202	ESE
16	1	30·395	55·2	..	..	269	SE
17	2	30·172	51·8	..	..	340	SSE
18	3	30·117	58·3	0·203	2·8	289	SSE & W
19	3	29·729	51·0	0·270	4·9	667	W
20	4	29·580	50·2	0·380	3·7	869	W
21	3	29·610	48·0	0·123	2·7	643	WNW
22	2	29·703	48·8	0·020	1·0	409	NW & V _{AR}
23	1	29·770	50·7	0·458	11·9	342	SE & W
24	2	29·605	47·8	0·023	1·1	468	NW & E
25	1	29·943	50·9	..	..	599	NW
26	4	30·074	56·9	0·158	3·2	496	W & SW
27	4	29·970	56·7	0·076	1·6	717	W & SW
28	2	29·845	51·6	0·110	1·6	916	W & NW
29	1	29·895	52·3	0·039	0·7	504	NW
30	..	29·808	50·9	..	..	486	NNW

DIARRHŒA IN DATES OF DEATH, 1889.

DATE. October	No. of Deaths.	Mean Reading of Barometer.	Mean Tempera- ture.	RAIN.		Mean Daily Velocity in Miles.	WIND. DIRECTION.
				Amount in Inches.	Hours.		
1	1	30.023	50.6	..	..	342	N
2	4	29.971	48.1	0.041	1.9	207	NNE
3	..	29.683	49.1	0.021	0.9	256	SE
4	1	29.559	49.2	0.018	1.5	206	NE & W
5	..	29.583	52.0	0.097	4.2	272	SE & W
6	2	29.706	52.6	0.174	5.7	359	WSW
7	1	29.093	48.9	0.080	3.9	1254	W
8	2	29.258	47.3	0.200	3.7	585	W
9	1	29.055	48.2	..	..	488	SW
10	2	29.253	47.1	..	..	225	SW
11	3	29.489	48.0	0.392	2.6	214	S & W
12	2	29.597	48.8	0.394	5.6	288	WNW
13	1	29.806	46.1	..	..	204	NW
14	1	29.923	45.8	0.007	0.5	207	SE
15	2	29.789	48.9	0.292	5.5	400	SSE
16	..	29.727	48.2	0.273	7.8	133	WNW
17	2	29.752	49.3	..	..	173	SW
18	1	29.524	48.5	0.029	2.6	457	SE
19	3	29.181	46.4	0.326	8.5	535	E
20	..	29.188	48.5	..	..	462	ESE
21	1	29.398	50.5	0.102	3.6	374	E
22	1	29.540	49.3	0.089	4.1	539	NE
23	2	29.781	45.8	..	..	393	NE
24	..	30.095	44.6	..	..	195	NE
25	..	30.274	43.8	0.030	2.2	270	ENE
26	..	30.249	44.4	..	..	424	ENE
27	..	29.938	44.0	0.107	5.3	462	NE
28	..	29.845	46.5	..	..	159	NNE
29	..	29.842	50.0	..	..	225	S
30	..	29.659	50.0	0.308	4.4	433	S
31	..	29.803	48.6	0.041	1.3	519	WSW

WHOOPING COUGH.

Whooping Cough occasioned 342 deaths. (The average number of deaths for the preceding ten years was 397). Its percentage death-rate relatively to deaths from all causes was 2·7 in the first quarter of the year, 3·9 in the second, 1·9 in the third, and 2·1 in the fourth ; its percentage rate relatively to deaths from all causes was 2·6, and relatively to deaths from Zymotic causes 14·5.

DEATHS FROM WHOOPING COUGH.

WARDS.			QUARTERS.								YEAR.			
			March.		June.		Sept.		Dec.					
			M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Total	
Scotland	..	{	Below 5 years ..	5	7	1	9	3	7	5	4	14	27	41
		{	Above 5 years ..	..	..	..	..	..	..	..	..	..	..	..
Vauxhall	..	{	Below 5 years ..	..	1	1	2	1	..	1	1	3	4	7
		{	Above 5 years ..	..	..	..	..	..	..	..	..	..	..	..
St. Paul's	..	{	Below 5 years ..	1	1	1	..	..	..	..	1	2	2	4
		{	Above 5 years ..	..	..	..	..	..	..	..	..	..	..	..
Exchange	..	{	Below 5 years ..	1	1	..	1	..	1	..	..	1	3	4
		{	Above 5 years ..	..	..	..	..	..	..	..	..	..	..	..
St. Anne's	..	{	Below 5 years ..	2	5	1	2	..	1	..	2	3	10	13
		{	Above 5 years ..	..	1	..	..	..	..	..	..	1	1	1
Lime Street	..	{	Below 5 years ..	1	1	1	..	..	..	..	..	2	1	3
		{	Above 5 years ..	..	..	..	..	..	..	..	..	..	..	..
Castle Street	..	{	Below 5 years ..	..	..	1	..	..	..	..	..	1	..	1
		{	Above 5 years ..	..	..	..	..	..	..	..	..	..	..	..
St. Peter's	..	{	Below 5 years ..	..	..	..	1	..	1	..	..	..	2	2
		{	Above 5 years ..	..	..	..	..	..	..	..	..	..	..	..
Pitt Street	..	{	Below 5 years ..	..	..	1	4	1	1	..	..	2	5	7
		{	Above 5 years ..	..	..	..	..	..	..	..	..	..	..	..
Great George	..	{	Below 5 years ..	..	..	2	1	..	..	..	..	2	1	3
		{	Above 5 years ..	..	..	..	..	..	..	..	..	..	..	..
Rodney Street..	..	{	Below 5 years ..	..	3	3	..	1	1	..	1	4	5	9
		{	Above 5 years ..	..	..	..	..	..	..	..	..	..	..	..
Abercromby	..	{	Below 5 years ..	..	..	..	2	1	1	2	3	3	6	9
		{	Above 5 years ..	..	..	..	..	..	..	..	..	..	..	..
Everton..	..	{	Below 5 years ..	9	16	13	16	9	5	4	6	35	43	78
		{	Above 5 years ..	..	1	..	1	..	..	..	1	..	3	3
Kirkdale	..	{	Below 5 years ..	3	7	6	5	5	3	5	6	19	21	40
		{	Above 5 years ..	..	..	..	..	..	..	1	2	1	2	3
West Derby	..	{	Below 5 years ..	7	8	4	6	2	5	2	3	15	22	37
		{	Above 5 years ..	..	1	..	..	1	..	..	..	1	1	2
North Toxteth	..	{	Below 5 years ..	1	2	6	9	1	8	6	3	14	22	36
		{	Above 5 years ..	..	1	1	..	..	..	..	1	1	2	3
South Toxteth..	..	{	Below 5 years ..	..	3	3	6	..	..	3	5	6	14	20
		{	Above 5 years ..	..	..	..	..	..	..	1	1	1	1	2
Workhouses and Hospitals	..	{	Below 5 years ..	3	6	2	1	..	..	..	1	5	8	13
		{	Above 5 years ..	..	1	..	..	..	..	..	..	..	1	1
City	..	{	Below 5 years ..	33	61	46	65	24	34	28	36	131	196	327
		{	Above 5 years ..	..	5	1	1	1	..	2	5	4	11	15

CROUP.

The deaths (129) from this disease were 25 below the average of the preceding ten years (1879 to 1888) and 48 lower than the average for the ten years 1869 to 1878.

DEATHS FROM CROUP.

WARDS.			QUARTERS.								YEAR.		
			March.		June.		Sept.		Dec.				
			M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Total
Scotland	..	{ Below 5 years ..	1	1	1	1	1	3	1	3	4	8	12
		{ Above 5 years ..	..	1	..	..	..	..	..	1	..	2	2
Vauxhall	..	{ Below 5 years ..	..	..	..	..	..	..	..	..	..	..	..
		{ Above 5 years ..	..	..	..	..	..	..	..	..	..	..	..
St. Paul's	..	{ Below 5 years ..	1	..	..	..	1	..	..	..	1	1	2
		{ Above 5 years ..	..	..	..	..	..	..	..	..	..	..	..
Exchange	..	{ Below 5 years ..	..	..	..	..	..	1	..	1	..	..	1
		{ Above 5 years ..	..	..	..	..	..	..	..	..	..	..	..
St. Anne's	..	{ Below 5 years ..	..	2	..	1	..	..	..	1	..	4	4
		{ Above 5 years ..	..	..	..	..	..	..	..	..	..	..	..
Lime Street	..	{ Below 5 years ..	1	1	1	..	1	..	..	2	2	..	4
		{ Above 5 years ..	..	..	..	..	..	..	..	..	..	..	..
Castle Street	..	{ Below 5 years ..	..	..	..	..	..	..	..	..	..	..	..
		{ Above 5 years ..	..	..	..	..	..	..	..	..	..	..	..
St. Peter's	..	{ Below 5 years ..	..	..	..	..	..	..	..	..	..	..	..
		{ Above 5 years ..	..	..	..	..	..	..	..	..	..	..	..
Pitt Street	..	{ Below 5 years ..	..	..	..	..	1	..	..	..	1	..	1
		{ Above 5 years ..	..	..	..	..	..	..	..	..	..	..	..
Great George	..	{ Below 5 years ..	..	1	..	..	1	..	..	..	1	1	2
		{ Above 5 years ..	..	..	..	..	..	1	..	1	..	..	1
Rodney Street..	..	{ Below 5 years ..	..	..	..	..	1	..	..	..	1	..	1
		{ Above 5 years ..	..	..	..	..	..	..	1	..	1	..	1
Abercromby	..	{ Below 5 years ..	1	..	..	..	..	1	..	2	..	..	2
		{ Above 5 years ..	..	..	..	..	..	..	..	..	..	..	..
Everton	..	{ Below 5 years ..	2	1	2	5	1	4	5	5	10	15	25
		{ Above 5 years ..	..	..	1	..	..	1	..	..	1	1	2
Kirkdale	..	{ Below 5 years ..	4	1	1	2	3	3	3	3	11	9	20
		{ Above 5 years ..	..	..	..	1	..	..	..	1	..	2	2
West Derby	..	{ Below 5 years ..	6	3	1	1	1	..	2	3	10	7	17
		{ Above 5 years ..	1	1	..	..	..	..	..	..	1	1	2
North Toxteth..	..	{ Below 5 years ..	1	2	..	1	1	..	2	3	4	6	10
		{ Above 5 years ..	..	1	..	..	..	..	1	..	..	2	2
South Toxteth..	..	{ Below 5 years ..	1	5	2	..	1	2	1	1	5	8	13
		{ Above 5 years ..	..	..	..	..	..	1	..	..	..	1	1
Workhouses and Hospitals	..	{ Below 5 years ..	1	..	..	1	..	..	..	..	1	1	2
		{ Above 5 years ..	..	..	..	..	..	..	..	..	..	..	..
City	..	{ Below 5 years ..	19	17	8	12	10	15	16	19	53	63	116
		{ Above 5 years ..	1	3	1	1	..	2	1	4	3	10	13

DIPHTHERIA.

The number of deaths (57) from this disease was 20 below the average of the preceding ten years (1879 to 1888), and 3 above the average for the ten years 1869 to 1878.

DEATHS FROM DIPHTHERIA.

WARDS.			QUARTERS.								YEAR.		
			March.		June.		Sept.		Dec.				
			M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Total.
Scotland	..	{ Below 5 years ..	..	..	..	..	..	2	1	1	1	3	4
		{ Above 5 years ..	..	..	..	..	..	..	..	..	..	..	..
Vauxhall	..	{ Below 5 years ..	..	..	..	..	..	..	1	1	1	1	2
		{ Above 5 years ..	..	..	..	..	..	..	..	..	..	..	..
St. Paul's	..	{ Below 5 years ..	..	..	..	..	..	..	..	1	..	1	1
		{ Above 5 years ..	..	..	..	..	..	..	..	..	..	..	..
Exchange	..	{ Below 5 years ..	..	..	..	..	..	..	..	..	..	..	..
		{ Above 5 years ..	..	..	..	..	..	..	..	..	..	..	..
St. Anne's	..	{ Below 5 years ..	..	..	..	..	..	..	..	..	..	..	..
		{ Above 5 years ..	..	..	..	..	..	..	..	..	..	..	..
Lime Street	..	{ Below 5 years ..	..	1	..	..	..	..	..	..	..	1	1
		{ Above 5 years ..	..	..	..	..	..	..	..	..	..	..	..
Castle Street	..	{ Below 5 years ..	..	..	..	..	..	..	..	..	..	..	..
		{ Above 5 years ..	..	..	..	..	1	..	..	..	1	..	1
St. Peter's	..	{ Below 5 years ..	..	..	..	..	..	..	..	..	..	..	..
		{ Above 5 years ..	..	..	..	..	..	..	..	..	..	..	..
Pitt Street	..	{ Below 5 years ..	..	..	..	..	1	..	..	..	1	..	1
		{ Above 5 years ..	..	..	..	..	..	..	..	..	..	..	..
Great George	..	{ Below 5 years ..	..	..	..	..	..	1	..	..	..	1	1
		{ Above 5 years ..	..	..	..	..	..	..	..	..	..	..	..
Rodney Street..	..	{ Below 5 years ..	..	..	..	..	..	..	..	..	..	..	..
		{ Above 5 years ..	..	..	..	..	..	..	..	..	..	..	..
Abercromby	..	{ Below 5 years ..	..	1	..	..	..	..	..	..	..	1	1
		{ Above 5 years ..	..	..	..	1	..	..	..	..	..	1	1
Everton	..	{ Below 5 years ..	..	1	..	2	1	..	..	1	1	4	5
		{ Above 5 years ..	..	..	..	..	..	..	..	1	..	1	1
Kirkdale	..	{ Below 5 years ..	..	1	..	..	..	2	1	2	1	5	6
		{ Above 5 years ..	..	..	..	..	..	..	..	..	..	..	..
West Derby	..	{ Below 5 years ..	..	3	..	1	..	..	1	2	1	6	7
		{ Above 5 years ..	2	1	..	..	..	..	1	1	3	2	5
North Toxteth..	..	{ Below 5 years ..	..	1	1	..	..	..	1	1	2	2	4
		{ Above 5 years ..	..	..	..	..	..	..	..	..	..	..	..
South Toxteth..	..	{ Below 5 years ..	1	1	..	1	..	..	..	1	1	3	4
		{ Above 5 years ..	..	..	..	..	..	..	..	..	..	..	..
Hospitals	.	{ Below 5 years ..	1	2	3	1	2	2	..	..	6	5	11
		{ Above 5 years ..	..	..	..	..	1	..	..	..	1	..	1
City	..	{ Below 5 years ..	2	11	4	5	4	7	5	10	15	33	48
		{ Above 5 years ..	2	1	..	1	2	..	1	2	5	4	9

OTHER ZYMOTICS.

Under the term of other Zymotics are included :—Small Pox, Chicken Pox, Cholera, Dysentery, Infantile Remittent Fever, Erysipelas, Syphilis Thrush, Puerperal Fever, Rheumatic Fever, Quinsy, Mumps, and Ague.

WARDS.			QUARTERS.								YEAR.		
			March.		June.		Sept.		Dec.				
			M	F.	M.	F.	M.	F.	M.	F.	M.	F.	Total.
Scotland	{	Below 5 years ..	4	3	..	1	1	2	2	..	7	6	13
		Above 5 years ..	2	1	..	1	2	..	1	2	5	4	9
Vauxhall	{	Below 5 years ..	..	1	..	1	..	2	..	1	..	5	5
		Above 5 years ..	1	..	..	..	..	..	..	..	1	..	1
St. Paul's	{	Below 5 years ..	..	..	..	..	..	..	..	..	..	..	..
		Above 5 years ..	..	..	..	..	1	..	..	..	1	..	1
Exchange	{	Below 5 years ..	..	1	..	..	..	..	..	..	..	1	1
		Above 5 years ..	..	..	..	1	..	..	..	..	..	1	1
St. Anne's	{	Below 5 years ..	..	..	..	1	1	..	..	1	1	2	3
		Above 5 years ..	1	1	1	1	1	1	1	..	4	3	7
Lime Street	{	Below 5 years ..	..	..	..	..	..	..	1	..	1	..	1
		Above 5 years ..	1	..	..	1	..	..	..	..	1	1	2
Castle Street	{	Below 5 years ..	..	..	..	..	..	..	..	..	..	..	..
		Above 5 years ..	..	..	..	1	..	..	..	..	..	1	1
St. Peter's	{	Below 5 years ..	..	..	1	..	..	2	..	..	1	2	3
		Above 5 years ..	..	..	..	..	..	..	..	..	..	..	..
Pitt Street	{	Below 5 years ..	1	1	..	1	1	1	..	1	2	4	6
		Above 5 years ..	..	..	..	..	..	..	..	..	..	..	..
Great George	{	Below 5 years ..	..	..	..	..	1	..	..	1	1	1	2
		Above 5 years ..	1	1	2	1	..	..	..	..	3	2	5
Rodney Street.. ..	{	Below 5 years ..	1	..	..	1	..	..	1	..	2	1	3
		Above 5 years ..	..	1	1	..	..	..	1	..	2	1	3
Abercromby	{	Below 5 years ..	..	..	..	3	..	2	..	..	..	5	5
		Above 5 years ..	..	..	..	..	..	1	..	1	..	2	2
Everton	{	Below 5 years ..	1	4	4	1	5	3	..	2	10	10	20
		Above 5 years ..	..	2	1	2	..	1	1	1	2	6	8
Kirkdale	{	Below 5 years ..	2	..	3	1	1	5	1	1	7	7	14
		Above 5 years ..	..	1	1	1	..	..	..	1	1	3	4
West Derby	{	Below 5 years ..	1	4	1	1	1	1	..	2	3	8	11
		Above 5 years ..	3	1	..	1	..	1	..	..	3	3	6
North Toxteth	{	Below 5 years ..	2	..	2	..	3	1	1	2	8	3	11
		Above 5 years ..	..	1	1	4	..	3	1	1	2	9	11
South Toxteth	{	Below 5 years ..	4	3	..	6	1	2	1	..	6	11	17
		Above 5 years ..	1	2	1	1	1	1	1	1	4	5	9
Workhouses and Hospitals	{	Below 5 years ..	..	2	..	1	2	2	1	..	3	5	8
		Above 5 years ..	4	2	1	..	1	2	7	1	13	5	18
City	{	Below 5 years ..	16	19	11	18	17	23	8	11	52	71	123
		Above 5 years ..	14	13	9	15	6	10	13	8	42	46	88

TUBERCULAR DISEASES.

This group of diseases includes Phthisis, Scrofula, Tabes Mesenterica, and Hydrocephalus. They occasioned 1,572 deaths in the City of Liverpool during the year 1889. (The average number of deaths for the preceding ten years was 1,848). The death-rate was 2·6 per 1,000 of the estimated population; their percentage death-rate relatively to deaths from all causes was 12·0.

PHTHISIS.

The deaths from Phthisis amounted to 1,127, the average number for the preceding ten years being 1,298.

WARDS.			QUARTERS.								YEAR.		
			March.		June.		Sept.		Dec.				
			M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Total.
Scotland	{ Below 5 years ..		1	1	..	..	1	..	3	1	5	2	7
	{ Above 5 years ..		6	14	12	7	12	8	9	16	39	45	84
Vauxhall	{ Below 5 years ..		..	..	..	..	..	..	..	..	..	..	..
	{ Above 5 years ..		3	3	3	1	1	2	2	..	9	6	15
St. Paul's	{ Below 5 years ..		..	..	..	..	..	..	..	..	..	..	..
	{ Above 5 years ..		..	2	..	2	1	2	5	1	6	7	13
Exchange	{ Below 5 years ..		..	..	..	..	..	..	..	..	..	..	..
	{ Above 5 years ..		..	1	2	..	2	..	1	1	5	2	7
St. Anne's	{ Below 5 years ..		1	1	..	1	..	..	..	..	1	2	3
	{ Above 5 years ..		5	6	5	3	1	4	1	4	12	17	29
Lime Street	{ Below 5 years ..		..	..	..	..	..	..	..	..	..	..	..
	{ Above 5 years ..		2	1	2	..	1	3	3	3	8	7	15
Castle Street	{ Below 5 years ..		..	..	..	..	..	..	..	..	..	..	..
	{ Above 5 years ..		..	..	..	..	..	..	..	..	..	..	..
St. Peter's	{ Below 5 years ..		..	..	..	..	..	..	..	..	..	..	..
	{ Above 5 years ..		1	1	..	1	..	2	2	..	3	4	7
Pitt Street	{ Below 5 years ..		..	..	..	..	..	..	..	..	..	..	..
	{ Above 5 years ..		..	1	1	1	1	1	3	1	5	4	9
Great George	{ Below 5 years ..		..	..	1	..	..	1	..	..	1	1	2
	{ Above 5 years ..		2	3	1	2	..	..	1	5	4	10	14
Rodney Street	{ Below 5 years ..		..	..	..	..	..	1	..	..	..	1	1
	{ Above 5 years ..		2	7	3	3	..	3	1	5	6	18	24
Abercromby	{ Below 5 years ..		..	..	..	..	..	..	..	..	..	..	..
	{ Above 5 years ..		3	3	2	1	5	2	3	1	13	7	20
Everton	{ Below 5 years ..		1	..	2	1	..	1	..	2	3	4	7
	{ Above 5 years ..		25	17	25	13	12	23	22	24	84	77	161
Kirkdale	{ Below 5 years ..		1	..	..	..	1	2	2	..	4	2	6
	{ Above 5 years ..		10	16	15	13	13	9	17	12	55	50	105
West Derby	{ Below 5 years ..		2	2	..	1	..	..	..	..	2	3	5
	{ Above 5 years ..		25	16	16	15	16	9	21	20	78	60	138
North Toxteth	{ Below 5 years ..		1	..	1	..	..	1	..	..	2	1	3
	{ Above 5 years ..		14	8	11	10	12	12	12	19	49	49	98
South Toxteth	{ Below 5 years ..		..	..	..	..	..	..	..	..	..	..	..
	{ Above 5 years ..		7	10	7	11	7	11	7	4	28	36	64
Workhouses and Hospitals	{ Below 5 years ..		..	..	..	..	..	..	..	..	..	..	..
	{ Above 5 years ..		50	38	43	36	42	26	36	19	171	119	290
City	{ Below 5 years ..		7	4	4	3	2	6	5	3	18	16	34
	{ Above 5 years ..		155	147	148	119	126	117	146	135	575	518	1093

DEATHS FROM THE OTHER TUBERCULAR DISEASES.

WARDS.				QUARTERS.								YEAR.		
				March.		June.		Sept.		Dec.				
				M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Total.
Scotland	..	..	{ Below 5 years ..	6	8	5	2	4	7	8	7	23	24	47
			{ Above 5 years ..	..	1	3	4	1	..	..	..	4	5	9
Vauxhall	..	..	{ Below 5 years ..	1	..	..	1	..	..	..	2	1	3	4
			{ Above 5 years ..	..	..	..	..	..	..	..	..	..	..	..
St. Paul's	..	..	{ Below 5 years ..	..	..	1	1	3	1	1	..	5	2	7
			{ Above 5 years ..	..	..	..	..	..	..	..	..	..	..	..
Exchange	..	..	{ Below 5 years ..	2	1	..	..	..	1	1	..	3	2	5
			{ Above 5 years ..	..	..	1	..	..	..	..	..	1	..	1
St. Anne's	..	..	{ Below 5 years ..	1	2	2	4	..	..	1	1	4	7	11
			{ Above 5 years ..	1	1	..	..	..	..	1	..	2	1	3
Lime Street	..	..	{ Below 5 years ..	..	1	2	..	3	..	..	..	5	1	6
			{ Above 5 years ..	1	..	..	..	..	..	..	..	1	..	1
Castle Street	..	..	{ Below 5 years ..	..	..	..	..	..	..	..	..	..	..	..
			{ Above 5 years ..	..	..	..	..	..	..	..	..	..	..	..
St. Peter's	..	..	{ Below 5 years ..	..	..	..	..	..	..	..	..	..	..	..
			{ Above 5 years ..	..	..	..	1	..	1	..	..	..	2	2
Pitt Street	..	..	{ Below 5 years ..	2	..	3	..	1	..	..	..	6	..	6
			{ Above 5 years ..	..	..	..	..	..	..	1	..	1	..	1
Great George	..	..	{ Below 5 years ..	1	1	1	1	1	1	..	1	3	4	7
			{ Above 5 years ..	..	..	..	1	..	..	..	1	..	2	2
Rodney Street..	..	..	{ Below 5 years ..	2	..	2	2	1	2	3	..	8	4	12
			{ Above 5 years ..	..	2	..	..	..	..	..	..	..	2	2
Abercromby	..	..	{ Below 5 years ..	1	2	3	..	2	3	1	1	7	6	13
			{ Above 5 years ..	..	..	..	..	2	..	..	1	2	1	3
Everton	..	..	{ Below 5 years ..	12	3	7	8	12	12	7	8	38	31	69
			{ Above 5 years ..	5	2	..	4	..	2	2	2	7	10	17
Kirkdale	..	..	{ Below 5 years ..	10	5	6	9	8	7	6	4	30	25	55
			{ Above 5 years ..	1	2	..	1	2	1	..	1	3	5	8
West Derby	..	..	{ Below 5 years ..	7	3	8	4	6	11	5	5	26	23	49
			{ Above 5 years ..	1	..	1	2	..	1	2	..	4	3	7
North Toxteth	..	..	{ Below 5 years ..	2	4	6	4	4	1	6	3	18	12	30
			{ Above 5 years ..	..	1	..	..	..	2	..	..	..	3	3
South Toxteth	..	..	{ Below 5 years ..	3	1	2	4	2	3	2	1	9	9	18
			{ Above 5 years ..	1	..	1	..	1	..	1	1	4	1	5
Workhouses and Hospitals	..	..	{ Below 5 years ..	..	1	5	1	3	1	..	3	8	6	14
			{ Above 5 years ..	4	4	2	4	4	2	2	6	12	16	28
City	..	..	{ Below 5 years ..	50	32	53	41	50	50	41	36	194	159	353
			{ Above 5 years ..	14	13	8	17	10	9	9	12	41	51	92

Mr. Hartnup has kindly supplied the following Meteorological Table :—

LIVERPOOL OBSERVATORY.

DATE—1889.	Mean Barometer.	Mean Temperature.	Rainfall on Ground.
	Inches.	o	Inches.
January	30·145	39·8	0·709
February	29·915	38·3	2·098
March	29·968	40·9	2·047
April	29·729	44·6	3·039
May	29·812	55·2	2·451
June	30·062	59·8	0·845
July	29·918	59·1	2·106
August	29·823	58·7	3·949
September	30·036	56·0	1·975
October	29·664	48·0	3·021
November	30·173	45·2	2·444
December.. .. .	30·121	40·1	2·689
YEAR 1889	29·947	48·8	27·373
„ 1888	29·931	47·8	24·090

SANITARY WORK.

Privies Certified by the Medical Officer of Health to be nuisances and injurious to health, and ordered by the Corporation to be converted into Water Closets during the year 1889.

WARDS.											No. of Privies Certified.
Scotland	..	..	..	..	..	..	..	..	..	..	2
Vauxhall	..	..	..	..	..	..	..	..	..	..	1
St. Paul's	..	..	..	..	..	..	..	..	..	..	1
Exchange	..	..	..	..	..	..	..	..	..	..	1
St. Anne's	..	..	..	..	..	..	..	..	..	..	1
St. Peter's	..	..	..	..	..	..	..	..	..	..	7
Pitt Street	..	..	..	..	..	..	..	..	..	..	1
Rodney Street	..	..	..	..	..	..	..	..	..	..	4
Abercromby	..	..	..	..	..	..	..	..	..	..	2
Everton	..	..	..	..	..	..	..	..	..	..	1
Kirkdale	..	..	..	..	..	..	..	..	..	..	3
West Derby	..	..	..	..	..	..	..	..	..	..	2
North Toxteth	..	..	..	..	..	..	..	..	..	..	2
TOTAL..											28

OFFENSIVE TRADES.

Applications for permission to carry on the following offensive trades were made during the year, and a report by the Medical Officer of Health on each application was submitted to the Health Committee.

Premises.	Business.	Granted.	Refused.	Date.
61, Coniston Street ..	Fat Boiling	—	1	7th Mar.
Land abutting on Caryl Street	Knacker's Yard	—	1	21st Mar.
Premises adjacent to Grafton Street ..	Knacker's Yard	1	—	30th May.
4, Meadow Street ..	Grease Melting	—	1	24th Oct.

Application asking that restrictions placed on license for Knacker's Yard in Grafton Street be cancelled. Refused 21st November.

SLAUGHTERHOUSE TRANSFER.

Premises.	Granted.	Date.
Back Butler Street	1	18th July.

DRYING DAMAGED GRAIN.

5, Marybone, certified as a nuisance, 28th March.

68, North Dingle, certified as a nuisance, 28th March.

Informations were laid against the tenants, and fines of 40s. and costs were inflicted in each case.

LIVERPOOL SANITARY AMENDMENT ACT, 1864.

THE NINTH PRESENTMENT.

On January 31st, 1889, the Medical Officer of Health delivered a Report to the Town Clerk, and to the Clerk of the Peace of the City, stating that the following premises in Midghall Street, Midghall Lane, Stockdale Street, Marybone, and Marlborough Street, were unfit for human habitation, and in a condition, state and situation, injurious, dangerous, and prejudicial to health, and ought to be demolished.

This Report was laid before the Grand Jury at the Court of General Quarter Sessions, on Tuesday, the 5th of March, when, after hearing evidence and visiting (by deputation) the different premises, they unanimously approved of the Medical Officer's Report, and made a presentment accordingly.

The houses were situated back to back, either in courts from seven to eleven feet wide, or immediately abutting on such courts. It was impossible to ventilate such houses, for they were really *culs de sac* in *culs de sac*, and a common offensive atmosphere pervaded the three rooms into which each house was divided. The neighbourhood had been long known as one of the hotbeds of Fever, and though fortunately, owing to our present sanitary supervision and regulations, Typhus does not appear frequently amongst the inhabitants, yet the death rate is very high, as seen in the following table —

STREET.	1885.		1886.		1887.		Average Death- rate for 3 years.
	No. of Deaths.	Death- rate per 1000.	No. of Deaths.	Death- rate per 1000.	No. of Deaths.	Death- rate per 1000.	
Midghall	22	49·2	24	53·7	26	58·2	53·7
Midghall Lane .. ..	..	..	1	..	1	..	..
Marlborough (odd numbers) ..	12	32·3	11	29·7	17	45·8	36·0
Stockdale (Nos. 2 to 10 and 2 and 4 courts) ..	..	..	4	..	3	..	..
Marybone (No. 3 court) ..	1	..	1	..	4	..	..
	35	38·5	41	45·0	51	56·0	46·5
City of Liverpool .. ..	..	23·7	..	23·7	..	23·6	23·7

NINTH PRESENTMENT.

The court known as No. 2 court in MIDGHALL STREET, in the City of Liverpool.

The dwelling-houses numbered 1, 2, 3, and 4 in the said No. 2 court.

The dwelling-houses numbered 4, 6, and 8 in MIDGHALL STREET aforesaid, contiguous to No. 2 court in the said street.

The court known as No. 4 court in MIDGHALL STREET aforesaid.

The dwelling-houses numbered 1, 2, and 3 in the said No. 4 court.

The dwelling-houses numbered 10 and 12 in MIDGHALL STREET aforesaid, contiguous to No. 4 court in the said street.

The court known as No. 8 court in MIDGHALL STREET aforesaid.

The dwelling-houses numbered 1, 2, 3, and 4 in the said No. 8 court.

The dwelling-houses numbered 22 and 24 in MIDGHALL STREET aforesaid, contiguous to No. 8 court in the said street.

The court known as No. 14 court in MIDGHALL STREET aforesaid.

The dwelling-house numbered 1 in the said No. 14 court.

The dwelling-house numbered 30 in MIDGHALL STREET aforesaid, contiguous to No. 14 court in the said street.

The court known as No. 16 court in MIDGHALL STREET aforesaid.

The dwelling houses numbered 1, 2, 3, and 4 in the said No. 16 court.

The dwelling-houses numbered 32 and 34 in MIDGHALL STREET aforesaid, contiguous to No. 16 court in the said street.

The court known as No. 18 court in MIDGHALL STREET aforesaid.

The dwelling-houses numbered 1, 2, 3, and 4 in the said No. 18 court.

The dwelling-houses numbered 36; and 38 in MIDGHALL STREET aforesaid, contiguous to No. 18 court in the said street.

The court known as No. 20 court in MIDGHALL STREET aforesaid.

The dwelling-houses numbered 1 and 2 in the said No. 20 court.

The dwelling-house numbered 40 in MIDGHALL STREET aforesaid, contiguous to No. 20 court in the said street,

The court known as No. 22 court in MIDGHALL STREET aforesaid.

The dwelling-houses numbered 1, 2, 3, and 4 in the said No. 22 court.

The dwelling-houses numbered 50 and 52 in MIDGHALL STREET aforesaid, contiguous to No. 22 court in the said street.

The court known as No. 1 court in MIDGHALL STREET aforesaid.

The dwelling-houses numbered 1, 2, and 3 in the said No. 1 court.

The dwelling-houses numbered 1 and 3 in MIDGHALL STREET aforesaid, contiguous to No. 1 court in the said street.

The dwelling-houses numbered 1, 2, and 3 in MIDGHALL LANE in the City aforesaid, contiguous to No. 1 court in Midghall Street.

The court known as No. 3 court in MIDGHALL STREET aforesaid.

The dwelling-houses numbered 1, 2, 3, 4, 5, and 6 in the said No. 3 court.

The dwelling-houses numbered 5 and 7 in MIDGHALL STREET aforesaid, contiguous to No. 3 court in the said street.

The court known as No. 5 court in MIDGHALL STREET aforesaid.

The dwelling-houses numbered 1, 2, 3, 4, 5, and 6 in the said No. 5 court.

The dwelling-houses numbered 9 and 11 in MIDGHALL STREET aforesaid, contiguous to No. 5 court in the said street.

The court known as No. 7 court in MIDGHALL STREET aforesaid.

The dwelling-houses numbered 1, 2, 3, 4, 5, and 6 in the said No. 7 court.

The dwelling-houses numbered 13 and 15 in MIDGHALL STREET aforesaid, contiguous to No. 7 court in the said street.

The court known as No. 9. court in MIDGHALL STREET aforesaid.

The dwelling-houses numbered 1, 2, 3, 4, 5, and 6 in the said No. 9 court.

The dwelling-houses numbered 17 and 19 in MIDGHALL STREET aforesaid, contiguous to No. 9 court in the said street.

The dwelling-house numbered 44 in MIDGHALL STREET aforesaid.

The dwelling-house numbered 4 in STOCKDALE STREET, in the City of Liverpool.

The court known as No. 2 court in STOCKDALE STREET aforesaid.

The dwelling-houses numbered 1, 2, 3, and 4 in the said No. 2 court.

The dwelling-houses numbered 6 and 8 in STOCKDALE STREET aforesaid, contiguous to No. 2 court in the said street.

The court known as No. 4 court in STOCKDALE STREET aforesaid.

The dwelling-houses numbered 2 and 4 in the said No. 4 court.

The dwelling-house numbered 10 in STOCKDALE STREET aforesaid, contiguous to No. 4 court in the said street.

The court known as No. 3 court in MARYBONE, in the City of Liverpool.

The dwelling-houses numbered 2, 3, 4, 5, 6, and 8 in the said No. 3 court.

The dwelling-house numbered 1 in MARLBOROUGH STREET, in the City of Liverpool.

The court known as No. 1 court in MARLBOROUGH STREET aforesaid.

The dwelling-house numbered 1 in the said No. 1 court.

The dwelling-house numbered 3 in MARLBOROUGH STREET aforesaid, at the entrance of No. 1 court in the said street.

The court known as No. 3 court in MARLBOROUGH STREET aforesaid.

The dwelling-houses numbered 1, 2, and 4 in the said No. 3 court.

The dwelling-houses numbered 5 and 7 in MARLBOROUGH STREET aforesaid, contiguous to No. 3 court in the said street.

The court known as No. 5 court in MARLBOROUGH STREET aforesaid.

The dwelling-houses numbered 1, 2, 3, 4, 5, and 6 in the said No. 5 court.

The dwelling-houses numbered 9 and 11 in MARLBOROUGH STREET aforesaid, contiguous to No. 5 court in the said street.

The court known as No. 7 court in MARLBOROUGH STREET aforesaid.

The dwelling-houses numbered 1, 2, 3, 4, 5, and 6 in the said No. 7 court.

The dwelling-houses numbered 13 and 15 in MARLBOROUGH STREET aforesaid, contiguous to No. 7 court in the said street.

The court known as No. 9 court in MARLBOROUGH STREET aforesaid.

The dwelling-houses numbered 1, 2, 3, and 4 in the said No. 9 court.

The dwelling-houses numbered 17 and 19 in MARLBOROUGH STREET aforesaid, contiguous to No. 9 court in the said street.

The court known as No. 11 court in MARLBOROUGH STREET aforesaid.

The dwelling-houses numbered 1, 2, 3, 4, 5, 6, 7, and 8 in the said No. 11 court.

The dwelling-houses numbered 21, 23, 25, and 27 in MARLBOROUGH STREET aforesaid, contiguous to No. 11 court in the said street.

The court known as No. 13 court in MARLBOROUGH STREET aforesaid.

The dwelling-houses numbered 1, 2, 4, 5, and 6 in the said No. 13 court.

The dwelling-houses numbered 29 and 31 in MARLBOROUGH STREET aforesaid, contiguous to No. 13 court in the said street.

The court known as No. 15 court in MARLBOROUGH STREET aforesaid.

The dwelling-houses numbered 1, 2, 3, 4, 5, and 6 in the said No. 15 court.

The dwelling-houses numbered 33 and 35 in MARLBOROUGH STREET aforesaid, contiguous to No. 15 court in the said street.

The court known as No. 17 court in MARLBOROUGH STREET aforesaid.
The dwelling-houses numbered 1, 2, 3, 4, 5, and 6 in the said No. 17 court.

The dwelling-houses numbered 37 and 39 in MARLBOROUGH STREET aforesaid, contiguous to No. 17 court in the said street.

The court known as No. 19 court in MARLBOROUGH STREET aforesaid.
The dwelling-houses numbered 1, 2, 3, and 4 in the said No. 19 court.
The dwelling-houses numbered 41 and 43 in MARLBOROUGH STREET aforesaid, contiguous to No. 19 court in the said street.

The court known as No. 21 court in MARLBOROUGH STREET aforesaid.
The dwelling-houses numbered 1, 2, 3, and 4 in the said No. 21 court.
The dwelling-houses numbered 45 and 47 in MARLBOROUGH STREET aforesaid, contiguous to No. 21 court in the said street.

The court known as No. 23 court in MARLBOROUGH STREET aforesaid.
The dwelling-house numbered 1 in the said No. 23 court.

Under the provisions of the above Act, the Medical Officer of Health delivered to the Town Clerk various Reports during the year, certifying that the following premises were unfit for human habitation, and ought to be demolished. These Reports were laid before the City Council, and referred to the Insanitary Property Committee to be dealt with:—

The dwelling-houses numbered 46 and 48 in MIDGHALL STREET, in the City of Liverpool.

The court known as No. 24 court in MIDGHALL STREET in the said City.
The dwelling-houses numbered 1, 2, 3, and 4 in the said No. 24 court.
The dwelling-houses numbered 54 and 56 in MIDGHALL STREET aforesaid, contiguous to No. 24 court in the said street.

The dwelling-house numbered 11 in STOCKDALE STREET, in the said City.

The court known as No. 7 court in STOCKDALE STREET aforesaid.

The dwelling-houses numbered 1, 2, 4, 5, and 6 in the said No. 7 court.

The dwelling-houses numbered 19 and 21 in STOCKDALE STREET aforesaid, contiguous to No. 7 court in the said street.

The court known as No. 7 court in THURLOW STREET, in the said City.

The dwelling-houses numbered 2 and 4 in the said No. 7 court.

The dwelling-house numbered 3 in DOWNE STREET, in the said City.

The dwelling-house numbered 2 in LOWER MYRTLE STREET, in the said City.

The court known as No. 6 court in DARNLEY STREET, in the said City.

The dwelling-houses numbered 1, 3, and 5 in the said No. 6 court.

The dwelling-house numbered 22 in DARNLEY STREET aforesaid, contiguous to No. 6 court in the said street.

The court known as No. 8 court in DARNLEY STREET aforesaid.

The dwelling-houses numbered 2, 4, and 6 in the said No. 8 court.

The dwelling-house numbered 24 in DARNLEY STREET aforesaid, contiguous to No. 8 court in the said street.

The court known as No. 10 court in DARNLEY STREET aforesaid.

The dwelling-houses numbered 1, 3, and 5 in the said No. 10 court.

The dwelling-house numbered 30 in DARNLEY STREET aforesaid, contiguous to No. 10 court in the said street.

The court known as No. 12 court in DARNLEY STREET aforesaid.

The dwelling-houses numbered 2, 4, and 6 in the said No. 12 court.

The dwelling-house numbered 32 in DARNLEY STREET aforesaid, contiguous to No. 12 court in the said street.

The court known as No. 14 court in DARNLEY STREET aforesaid.

The dwelling-houses numbered 1, 3, and 5 in the said No. 14 court.

The dwelling-house numbered 38 in DARNLEY STREET aforesaid, contiguous to No. 14 court in the said street.

The court known as No. 15 court in DARNLEY STREET aforesaid.

The dwelling-houses numbered 1, 3, 5, 7, 9, 11, 13, and 15 in the said No. 15 court..

The dwelling-house numbered 39 in DARNLEY STREET aforesaid, contiguous to No. 15 court in the said street.

The court known as No. 16 court in DARNLEY STREET aforesaid.

The dwelling-houses numbered 1, 2, 3, 4, 5, and 6 in the said No. 16 court.

The dwelling-houses numbered 40 and 42 in DARNLEY STREET aforesaid, contiguous to No. 16 court in the said street.

The court known as No. 18 court in DARNLEY STREET aforesaid.

The dwelling-houses numbered 2, 4, and 6 in the said No. 18 court.

The dwelling-house numbered 44 in DARNLEY STREET aforesaid, contiguous to No. 18 court in the said street.

The court known as No. 24 court in DARNLEY STREET aforesaid.

The dwelling-houses numbered 1, 3, and 5 in the said No. 24 court.

The dwelling-house numbered 58 in DARNLEY STREET aforesaid, contiguous to No. 24 court in the said street.

The court known as No. 26 court in DARNLEY STREET aforesaid.

The dwelling-houses numbered 1, 2, and 3 in the said No. 26 court.

The dwelling-house numbered 60 in DARNLEY STREET aforesaid, contiguous to No. 26 court in the said street.

The dwelling-house numbered 54 in WARWICK STREET, in the said City.

The dwelling-house numbered 33 in HENDERSON STREET, in the said City.

The City Engineer has kindly supplied the following tables :—

INSANITARY PROPERTY.

Insanitary Property purchased 1889.				Insanitary Property demolished 1889.				
No. of houses included in eighth presentment.	No. of houses included in ninth presentment.	No. of houses purchased by Insanitary Property Committee included in presentments referred by Council to Committee.	Total.	No. of houses included in seventh presentment.	No. of houses included in eighth presentment.	No. of houses included in ninth presentment.	No. of houses demolished by Insanitary Property Committee included in presentments referred by Council to Committee.	Total.
3	55	61	119	7	16	19	56	98

NUMBER OF HOUSES ERECTED AND NUMBER OF HOUSES TAKEN DOWN DURING THE YEAR 1889.

WARDS.								Houses Erected.	Houses taken down.
1	Everton and Kirkdale..	..	..	..	..	..	..	68	7
2	Scotland	..	..	..	..	..	..	41	22
3	Vauxhall	..	..	..	..	..	..	....	34
4	St. Paul's	..	..	..	..	..	..	1	9
5	Exchange	..	..	..	..	..	..	....	6
6	Castle Street	..	..	..	..	..	..	1	5
7	St. Peter's	..	..	..	..	..	..	....	2
8	Pitt Street	..	..	..	..	..	..	....	8
9	Great George	..	..	..	..	..	..	14	....
10	Rodney	..	..	..	..	..	..	....	74
11	Abercromby	..	..	..	..	..	..	....	1
12	Lime Street	..	..	..	..	..	..	....	1
13	St. Anne's	..	..	..	..	..	..	....	13
14	West Derby	..	..	..	..	..	..	337	....
15	South Toxteth	..	..	..	..	..	..	103	43
16	North Toxteth	..	..	..	..	..	..	36	59
TOTALS								601	284

SEWER VENTILATION TO END OF 1889.

No. of 6-inch Iron Pipe Ventilating Shafts	..	..	..	..	886
No. of Street Ventilating Gratings	.	..	..	..	4,430
The length of Old Sewers Ventilated	.	..	..	..	180 miles

NOTE.—All New Sewers are ventilated as constructed.

THE STAFF OF INSPECTORS UNDER THE MEDICAL OFFICER OF HEALTH.

The inspection and registering of lodging houses, sub-let houses, canal boats, and bakehouses are carried out under the special directions of the Medical Officer, as well as the disinfection of infected houses, the granting of licenses for keeping cattle, and the registration of dairies, cowsheds and milk shops. For these purposes the Medical Officer has a staff consisting of one Chief Inspector, ten Inspectors for lodging houses, one for canal boats, one for bakehouses, two for disinfection, and one for milk shops.

The constant supervision of lodging houses is equally as necessary to secure cleanliness as to prevent overcrowding, and for this purpose an additional clause in the bye-laws has been obtained to secure the cleansing of the floors of houses, which were found to be sadly neglected and often in a filthy condition. The enforcement of this bye-law has had a beneficial effect upon the inhabitants in rousing them from that dirty lethargic condition into which they are too apt to fall.

The following informations were laid, and small fines inflicted by the Magistrates, against the Keepers of Lodging Houses :—

Not sweeping floors... ..	28
Not washing floors	16

Sub-let Houses :—

Not sweeping floors	509
Not washing floors.... ..	566

LODGING-HOUSES.

The Health Committee have, since the passing of the Sanitary Act, 1866, ruled that, as far as possible, all registered lodging-houses should have a day apartment for the accommodation of their lodgers, and that all houses where single rooms were occupied by day and night should be registered as sub-let. The space required for a night lodger in a registered lodging-house is 300 cubical feet, while the space in a sub-let house for each adult is 350 feet.

There were on the register 854 lodging-houses at the end of 1888, and 833 at the end of 1889. This difference was occasioned by the removal of 271 old licences, and the addition of 250 new ones. The visits to lodging-houses are both by day and night. The lodging-houses of the better class, and especially those provided with only single beds for each person, and only with the number of beds equivalent to the number of lodgers allowed, are not visited at night except on grave suspicion or on complaint, or in the case of foreign emigrant lodging-houses. The night visits are pretty nearly restricted to the low districts and tramp houses. The number of day visits paid during the year was 36,121, and the night visits 5,771. The number of lodging-houses found overcrowded on the night visits was 31, the number of informations laid for breaches of the bye-laws was 85, with the results of fines in 82 cases to the extent of £14 5s. 6d., in sums varying from 1s. to 10s. and costs. The number of lodging-houses found dirty was 129; notices were served to lime-wash and cleanse.

It is necessary frequently to visit houses which are not licensed either as lodging or sub-let houses, especially when emigration is brisk or at race times. There were 1,232 such visits paid during the day, and in 21 of the cases where suspicion was confirmed they were followed up by night visits. A tenant harbouring lodgers is not taken before the Justices for the first offence, but is noticed to apply to have his rooms measured and licensed. There were 196 such notices issued during the year, but in only 7 cases did the tenants refuse to comply; they were brought before the Justices and fined. A bye-law requires that every case of infectious sickness in a lodging-house should be at once reported to the Medical Officer of Health. 14 cases of fever and 1 case of small-pox occurred in lodging-houses; the patients were at once sent to hospital, the bedding, &c., to the disinfecting apparatus, and the rooms purified and cleansed. No lodger died from fever or small-pox in a registered lodging-house; but there were 107 deaths from non-contagious diseases in lodging-houses, of which 74 belonged to the keepers' families and 33 were lodgers.

SEAMEN'S LICENSED LODGING HOUSES.

The Corporation have made bye-laws, with the sanction of the President of the Board of Trade, for the licensing of Seamen's Lodging Houses, under the Merchant Shipping (Fishing Boats) Act, 1883, section 48, which enacts that

“ The Sanitary Authority within whose district any seaport town is situate may,
 “ with the sanction of the President of the Board of Trade, from time to time,
 “ make, revoke, alter, and amend bye-laws and regulations relating to Seamen's
 “ Lodging Houses in such town, which shall be binding upon all persons and
 “ bodies keeping houses in which seamen are lodged, and the owners thereof,
 “ and persons employed therein. Such bye-laws and regulations shall, amongst
 “ other things, provide for the licensing of Seamen's Lodging Houses, the
 “ inspection of the same, the sanitary conditions of the same, the publication of
 “ the fact of a house being licensed, the due execution of the bye-laws and
 “ regulations, and the non-obstruction of persons engaged in securing such
 “ execution, the preventing of persons not duly licensed holding themselves out
 “ as keeping or purporting to keep licensed houses, and the exclusion from
 “ licensed houses of persons of improper character, and sufficient penalties for
 “ the breach of such bye-laws and regulations not exceeding in any case the sum
 “ of fifty pounds. All offences under such bye-laws and regulations shall be
 “ deemed to be offences within the Merchant Shipping Acts, 1854 to 1883, and
 “ be punishable accordingly.”—And on the written application of the keeper
 of any registered common lodging house or registered lodging house, made in
 such form and stating such particulars as the Council require, the Council will,
 if they see fit, grant to such keeper a license authorizing him to designate his
 registered house a Seamen's Licensed Lodging House.

During the year 10 applications were received, 9 of which were granted ; 12 of the licenses previously granted were renewed, making the number on the Register 21.

SUB-LET HOUSES.

The number registered during 1889 was 630, making the total on the Register on the 31st December, 19,367. The number of visits paid during the night was 17,281, and during the day 105,504, with the result of finding 1,514 rooms overcrowded. In addition to overcrowding, the offence (though not punishable in sub-let houses) of permitting males and females not married to occupy the same room comes under the notice, and is entered in the books of the Inspectors. There were 704 rooms thus indecently occupied by 997 males and 1,227 females, besides having also in these rooms 380 children between the ages of 3 and 12 years. The character of the indecent occupation may be judged of from the following facts:—In 390 instances one man and two women were found in the same bedroom ; in 209 instances two men and one woman : in 54 instances two men and two women ; in 32 instances one man and three women ; in 12 instances three men and one woman ; in 4 instances two men and three women ; in 2 instances one man and four women ; and in 1 instance three men and two women.

Informations were laid against 2,293 chief tenants for breaches of the bye-laws, with the following results:—2,199 fined 1s. and 1s. costs ; 54 fined 2s. 6d. and 2s. 6d. costs ; 2 fined 5s. and 4s. 6d. costs ; making a total of fines levied during the year of £234 7s. Of the remaining 38 cases, 10 informations were withdrawn and 28 acquitted, the tenants having complied with the bye-laws.

BAKEHOUSES.

7,743 visits have been made to Bakehouses during the year. 614 Bakehouses were found dirty, and notices were served to limewash and cleanse them. 7 notices were served to remove stagnant water, and 8 to remedy defective drains. All notices were complied with.

CANAL BOATS.

The following Report on the execution of the Canal Boats Acts, 1877 and 1884, by the Liverpool Sanitary Authority during the year 1889, was sent to the Local Government Board.

The Leeds and Liverpool Canal Company are proprietors of the only Canal having direct communication with Liverpool, and the length of the waterway within the City, exclusive of the locks which lead to the Docks, is about three miles.

The duties of measuring and inspecting the boats are discharged by Mr. Wilson, Chief Lodging-house Inspector, and Mr. Thornthwaite, Lodging-house Inspector. There is no additional salary paid them beyond that of Lodging-house Inspectors.

The number of visits and inspections of Canal Boats during the year was 4,268.

60 Boats were found to be used as dwellings, and not registered.	}	54 abated, 5 not seen since by the Inspectors, and 1 notice not ex- pired.
11 Notices were sent to the owners		
6 Informations were laid		

36 were found without Certificates on board	}	abated.
25 Notices were sent to the owners		
2 Informations were laid.		

25 were found not having the registered number painted on both sides of the boat.	}	24 abated and 1 not seen since by the Inspector.
25 Notices were sent to the owners.		

24 cabins, used as dwellings, were found in a dilapidated and insanitary condition, caused by leaky decks and broken floors; 24 Notices were sent to the owners—23 abated, and 1 notice not expired.

3 boats had defective ventilation of cabins; 3 Notices were sent—abated.

1 had defective ventilation between the bulkheads; 1 Notice sent—abated

38 had defective second bulkheads; 36 Notices were sent, and 2 verbal notices given—abated.

27 required the cabins painting ; 27 Notices were sent to owners—23 abated, 1 notice not expired, and 3 not seen since by the Inspectors.

8 had dirty cabins and required cleaning ; verbal Notices given to masters—abated.

In 12 Cases the Inspectors on visiting the boats between 6 and 8 a.m. found the sexes mixed, and summoned the Masters.

New certificates were issued to 12 boats, owing to structural alterations.

Informations were laid in 20 cases, and in 14 instances fines were inflicted varying from 1s. and 1s. costs to 5s. and 4s. 6d. costs, and 6 were withdrawn having complied with the Acts.

There was no infectious sickness on the boats during the year.

Fifty four Notices were sent to the School Board of children living on Canal Boats and not attending school.

The number of boats on the register is 470, of which 155 have been re-registered, viz. :—5 in 1884, 60 in 1885, 21 in 1886, 25 in 1887, 20 in 1888, and 24 in 1889.

During the year thirty new boats were registered, and twenty-four re-registered on account of changes of owners.

There were fifty-six changes of masters on the boats, and the necessary records made on the register.

CASES OF INFECTIOUS DISEASE COMING UNDER THE NOTICE
OF THE MEDICAL OFFICER OF HEALTH DURING 1889.

Year—1889.	Fever.			Small Pox.	Scarlatina.	Measles.	Diphtheria	TOTAL.
	Typhus.	Typhoid.	Simple.					
January	5	43	4	..	171	892	12	1127
February	11	41	2	..	145	486	7	692
March ..	24	33	4	..	139	552	10	762
April ..	18	33	5	3	130	307	9	505
May ..	11	46	6	1	113	148	9	334
June ..	13	51	14	2	114	121	4	319
July ..	12	68	6	..	136	55	14	291
August ..	20	75	1	1	128	22	7	254
September	4	105	7	..	161	21	11	309
October ..	26	55	4	..	257	105	13	460
November	11	80	5	1	185	254	12	548
December	3	40	4	1	153	212	14	427
TOTAL ..	158	670	62	9	1,832	3,175	122	6,028
Removed to Hospital	124	302	54	8	533	104	39	1,164

Of the patients removed to Hospital the following were conveyed by the Sanitary Officers:—521 cases of Fever, 514 cases of Scarlatina, 6 cases of Small Pox, 4 cases of suspected Small Pox, 39 cases of Measles, 20 cases of Diphtheria, and 1 case of Erysipelas, making a total of 1,105 persons. 583 were taken to Netherfield Road Hospital, 41 to the Parish Workhouse Hospital, Brownlow Hill, 15 to the City Hospital, Park Hill, and 466 to the City Hospital, Grafton Street.

In accordance with the arrangements made with the School Board, 1,605 post cards were sent to the Head Masters of the various schools, informing them that children from infected houses attended their schools. Similar information was sent to the School Board.

DISINFECTION OF HOUSES.

In all cases of infectious disease the houses were disinfected, free of cost, with sulphurous gas, by Officers appointed by the Health Committee ; but whenever there was sickness in any room of the house, so as to endanger health by the use of sulphurous gas, disinfectants were given to the tenants for use in the sick room until the sulphurous gas could be used safely. No house is considered properly disinfected until sulphurous gas has been used. The existence of sickness, and the consequent employment of carbolic acid powder, necessitate many visits by the persons in charge of disinfection. There were in all 5,070 visits paid during the year to houses for the purpose of disinfection, the number of houses properly disinfected being 2,041.

MORTUARIES.

During the year 24 bodies were, by order of the Justices on the certificate of the Medical Officer, removed to the Mortuaries provided by the Council under Section 142 of the Public Health Act, 1875.

THE DISINFECTING APPARATUS.

The number of articles disinfected at the Apparatus during the year amounted to 28,956.

DATE. 1889.		Number of Beds.	Number of Mattresses.	Number of Pieces of Bedding.	Number of Pieces of Wearing Apparel, &c.	Total Number of Articles.
Week ending--						
January	5 ..	38	56	244	70	408
"	12 ..	31	59	254	96	440
"	19 ..	30	44	221	86	699
"	26 ..	62	82	444	111	381
February	2 ..	31	41	201	109	382
"	9 ..	35	49	234	92	410
"	16 ..	43	84	362	133	622
"	23 ..	38	62	294	230	624
March	2 ..	35	59	232	71	397
"	9 ..	41	69	290	201	601
"	16 ..	38	49	213	227	527
"	23 ..	45	63	305	113	526
"	30 ..	40	42	260	199	541
April	6 ..	39	52	328	214	633
"	13 ..	40	59	270	165	534
"	20 ..	33	38	226	153	450
"	27 ..	54	56	253	145	508
May	4 ..	34	39	192	193	458
"	11 ..	47	71	331	122	571
"	18 ..	41	66	317	242	666
"	25 ..	46	55	318	203	622
June	1 ..	27	48	167	180	422
"	8 ..	28	43	221	215	507
"	15 ..	41	44	266	39	390
"	22 ..	34	44	155	31	264
"	29 ..	48	74	337	76	535
July	6 ..	42	56	248	43	389
"	13 ..	37	28	208	138	401
"	20 ..	40	52	213	158	463
"	27 ..	40	49	194	27	310
August	3 ..	46	42	248	34	370
"	10 ..	19	31	105	23	178
"	17 ..	31	41	217	87	376
"	24 ..	41	61	372	55	529
"	31 ..	33	47	219	47	346
September	7 ..	55	64	316	125	560
"	14 ..	36	43	289	11	379
"	21 ..	40	53	219	91	403
"	28 ..	52	74	326	129	581
October	5 ..	64	71	352	147	634
"	12 ..	38	89	435	221	783
"	19 ..	52	93	397	230	772
"	26 ..	56	90	482	196	824
November	2 ..	65	82	421	400	968
"	9 ..	62	67	446	226	801
"	16 ..	78	96	554	339	1,067
"	23 ..	66	96	461	204	827
"	30 ..	68	96	406	178	748
December	7 ..	48	78	436	130	692
"	14 ..	56	89	399	480	1,024
"	21 ..	61	78	395	189	723
"	28 ..	32	46	279	323	680
Totals .. .		2,277	3,160	15,572	7,947	28,956

The number of articles destroyed at the Apparatus during the year amounted to 936.

DATE. 1889.	Number of Beds.	Number of Mattresses.	Number of Pieces of Bedding.	Number of Pieces of Wearing Apparel, &c	Total Number of Articles.
Week ending—					
January 5 ..	..	..	..	..	..
„ 12 ..	3	3	11	12	29
„ 19 ..	..	..	..	..	..
„ 26 ..	3	12	..	..	15
February 2 ..	3	4	4	11	22
„ 9 ..	2	4	..	..	6
„ 16 ..	2	10	4	1	17
„ 23 ..	2	3	5	1	11
March 2 ..	..	8	3	..	11
„ 9 ..	2	5	4	5	16
„ 16 ..	3	2	1	20	26
„ 23 ..	2	4	2	8	16
„ 30 ..	4	4	5	46	59
April 6 ..	2	..	10	66	78
„ 13 ..	2	2	1	..	5
„ 20 ..	2	2	2	2	8
„ 27 ..	2	5	8	11	26
May 4 ..	..	4	..	..	4
„ 11 ..	1	4	5	..	10
„ 18 ..	..	..	4	23	27
„ 25 ..	2	3	2	18	25
June 1 ..	1	3	3	..	7
„ 8 ..	3	6	9	21	39
„ 15 ..	3	..	4	3	10
„ 22 ..	..	..	..	..	..
„ 29 ..	2	12	4	11	29
July 6 ..	2	4	3	4	13
„ 13 ..	1	2	2	..	5
„ 20 ..	2	14	4	..	20
„ 27 ..	1	6	..	..	7
August 3 ..	1	3	..	..	4
„ 10 ..	2	4	2	..	8
„ 17 ..	1	9	..	..	10
„ 24 ..	2	2	13	2	19
„ 31 ..	..	2	..	..	2
September 7 ..	7	2	11	1	20
„ 14 ..	3	4	7	6	20
„ 21 ..	8	9	9	41	67
„ 28 ..	1	9	4	2	16
October 5 ..	3	8	11	7	29
„ 12 ..	3	9	..	..	12
„ 19 ..	..	10	..	..	10
„ 26 ..	2	9	3	13	27
November 2 ..	5	21	5	31	62
„ 9 ..	1	5	1	1	8
„ 16 ..	4	8	2	24	38
„ 23 ..	..	2	..	..	2
„ 30 ..	3	6	..	4	13
December 7 ..	..	3	..	..	3
„ 14 ..	2	4	4	11	21
„ 21 ..	..	..	..	..	..
„ 28 ..	..	4	..	..	4
Totals	100	259	172	405	936

CONTAGIOUS DISEASES (ANIMALS) ACT, 1878.

This Act and the Orders issued under it by the Board of Agriculture were referred by the City Council to the Medical Officer to carry out, in conjunction with the Veterinary Inspector, the Inspector of Nuisances, and the Meat Inspectors.

PLEURO-PNEUMONIA.

On the 21st October the owner of the Dairy 98, Northumberland Street, killed two cows, which were ailing, and on examination were found to have been suffering from Pleuro-Pneumonia, and were certified by the Veterinary Inspector. There were eleven other cows on the premises; these were also killed, and on examination one was found to be suffering from the disease. Compensation was paid to the owner for the eleven cows, at the full value for ten, and three-fourths for the one diseased. No compensation for the two killed by the owner was given.

The amount given in compensation was ...	...	£242 17s. 6d.
Less proceeds of Sale of Meat ...	...	£142 18s. 4d.
Nett loss...		£99 19s. 2d.

One case was found in a slaughter house, having been brought from outside the City, of which notice was sent to the County authorities.

SWINE TYPHOID.

This disease was found in nine pigs brought from Ireland, five in Gill Street Market and four in slaughter-houses.

RABIES.

A woman, aged 35 years, was certified to have died from Hydrophobia on 25th April, 1889, resulting from the bite of a cat two months previously. Inquiries were made respecting the cat and its history, but no satisfactory information could be obtained.

A number of cases of suspected Rabies were reported during the year, which on examination by the Veterinary Inspector were certified not to be rabies.

There was no case of Foot and Mouth Disease, which appears to be quite stamped out, nor of Anthrax, nor Glanders.

LICENSES FOR CATTLE.

During the year 1889, 12 applications were made to the Health Committee for licenses to keep cows; 8 of the applications for keeping 59 cows were granted. There are at present 418 shippons licensed to keep 5,105 cows. 49 of the shippons previously licensed have been transferred to fresh tenants.

6 applications were made during the year to keep pigs in styres separate from and unconnected with shippons; 1 of the applications for keeping 4 pigs was granted. The total number of premises or styres now licensed in the City is 34 for keeping 111 pigs.

DAIRIES, COWSHEDS, AND MILKSHOPS ORDER.

Number of applications for registration during the year	296
Of which transfers were	179
Number of applications granted	252
„ „ refused ..	44
Number on the register at the end of 1888	2157
„ „ „ 1889	2261
	<hr/>
An increase of	104
	<hr/>

SUMMARY of Veterinary Inspections, under the Contagious Diseases (Animals) Act, for year 1889,
by Richard S. Reynolds, M.R.C.V.S., Veterinary Inspector for the Corporation of Liverpool.

TABLE No. 1.
PLEURO-PNEUMONIA.

Post-Mortem Examinations of Lungs or Carcases.	Number of Infected Places.	PRIMARY INSPECTIONS		Subsequent Examinations of Animals in infected places for Slaughter.		Animals examined for re-entry into infected places after disinfection.	Inspection of infected places cleansed and disinfected.
		No. of Animals Examined.	No. found Affected.	Healthy.	Diseased.		
16	1	24	1	—	—	—	1

TABLE No. 2.
SWINE TYPHOID.

No. of Pigs examined.	No. of Carcases examined.	Examination of Animals for removal for Slaughter.	Inspection of infected places cleansed and disinfected.
—	—	—	—

SUMMARY of Veterinary Inspections under the Contagious Diseases (Animals)
Act.—*Continued.*

TABLE No. 3.
GLANDERS AND FARCY.

Post-Mortem Examinations.	Animals Examined.	Affected.	Not Affected.	Inspection of infected places cleansed and disinfected.
—	—	—	—	—

TABLE No. 4.
RABIES.

Animals Examined.	Affected.	Not Affected.	Post-Mortem Examinations.	Affected.	Not Affected.
—	—	—	34	—	*34

* 33 dogs and 1 cat.

TABLE No. 5.
ANTHRAX.

Animals Examined.	Affected.	Not Affected.	Post-Mortem Examinations.	Affected.	Not Affected.
—	—	—	—	—	—

TABLE No. 6.
GENERAL.

EXAMINATION OF ANIMALS IN TRANSIT.				
	FOR EXPORT.		LANDED COASTWISE.	
	Healthy.	Diseased.	Healthy.	Diseased.
Cattle	21	—	—	—
Sheep	—	—	—	—
Swine	—	—	—	—

SANITARY DEPARTMENT.

The Staff of the Sanitary Department has been placed under the management of the Assistant Medical Officer, Dr. Hope, who has supplied the following tables of work done by that department during the Year.

PROCEEDINGS UNDER THE CONTAGIOUS DISEASES (ANIMALS) ACT, 1878.

Number of Visits to Railway Stations	3,741
„ Inspections of pens	116,886
„ found clean	94,443
„ „ dirty and cleansed before being used	22,429
„ Informations for dirty pens used before being cleansed	14
„ Inspections of Trucks.. .. .	26,954
„ found clean	23,607
„ „ dirty and cleansed before being used, or leaving the City dirty	3,347
„ Informations for dirty trucks used before being cleansed	—
„ Inspections of Horse Boxes	396
„ found clean	199
„ „ dirty and cleansed before being used, or leaving the City dirty	195
„ Informations for dirty horse boxes used before being cleansed	2
Number of Inspections of Vessels	9,535
„ found clean	5,340
„ „ dirty and cleansed before being used, or going to Sea without cattle or cargo	4,189
„ Informations for dirty vessels used before being cleansed	6
„ Inspections of Gangways	8,009
„ found clean	6,569
„ „ dirty and cleansed before being used	1,439
„ Informations for dirty gangways used before being cleansed	1
„ Informations for not disinfecting scrapings and sweeping	2
Number of Inspections of Lairage and Sale Yards	3,568
„ found clean	2,827
„ „ dirty and cleansed before being used	740
„ Informations for dirty Lairages used before being cleansed	1
„ „ „ landing dung of Foreign animals without consent in writing of the Local Authority	3
„ „ „ landing broken fodder	3
„ Informations for having spaces on board vessels larger than the required measurement	10
Total Number of Informations	42
„ Fined	27
„ Withdrawn	15
Amount of Fines and Costs.. .. .	£35 15 6

RETURNS OF CATTLE KILLED IN THE CITY SLAUGHTER-HOUSES,
AND OF IMPORTED DEAD MEAT.

STREET.		Beasts.	Sheep.	Lambs.	Calves.	Pigs.	Dead Meat Imported for Sale at the Abattoir.			
							Beasts.	Sheep.	Pigs.	Calves.
Abattoir		11824	102779	..	13299	19774	22987	158401	..	..
Foreign Animals' Wharf—										
Huskisson Dock . . }			..	..	..	..	1983	262	..	..
Canada Dock.. . }										
NEW PARTS.	Byles Street	6	819	203	2	..	..	..	..	..
	Back Butler Street	268	726	327	32	..	..	..	..	..
	Back Castle Street	847	184	90	437	..	116	..	..	..
	Back Mount Vernon Green	322	4107	916	45	..	..	..	..	..
	Cotter Street	170	403	151	87	2510	..	..	..	..
	Corlett Street	157	1474	588	6	4	..	..	..	..
	Crown Street	83	1459	306	10	26	..	..	..	..
	Darnley Street . . . . .	..	..	..	..	3148	..	..	..	..
	Edgeware Street . . . . .	..	440	144	..	..	..	..	..	..
	Embledon Street	339	3577	1566	43	65	..	..	..	..
	Foley Street . . . . .	..	..	..	..	7226	..	..	..	..
	Gelling Street	224	106	89	51	..	..	..	..	..
	Peel Street	118	1221	329	9	70	..	..	..	..
OLD PARTS.	Bevington Hill	1674	346	244	675	2	585	..	..	..
	Benledi Street . . . . .	..	..	..	..	1730	..	..	..	..
	Byrom Street . . . . .	..	..	..	..	3693	..	..	..	..
	Bolton Street	177	3082	1440	13	..	..	..	..	..
	Back Commutation Row(1)	96	1152	105	5	78	..	..	..	..
	„ „ (2)	580	2407	339	..	..	..	..	..	..
	Copperas Hill . . . . .	..	..	..	..	11825	..	..	..	..
	Finch Place	636	2078	677	5	1	..	..	..	..
	Frederick Street	5	445	291	13	14	..	..	..	..
	Hodson Street	103	1371	301	1	..	..	..	..	..
	Lydia Ann Street	140	4383	496	..	..	..	..	..	..
	Norman Street . . . . .	..	..	..	..	2906	..	..	..	..
	Norfolk Street . . . . .	..	2327	582	..	9	..	..	..	..
	Scotland Road	9	22	..	426	..	..	..	..	..
	Soho Street . . . . .	..	..	..	..	1823	..	..	..	..
Upper Milk Street	154	149	..	..	12500	..	..	..	..
Total in Private Slaughter-houses		6107	32278	9184	1860	47630	701			
Total in the City		17931	195057	9184	15159	67404	25671	158663	..	..

UNWHOLESOME MEAT, FISH, &c., SEIZED AND DESTROYED.

DATE.—1889.		Beef.	Veal.	Mutton.	Lamb.	Pork.	Poultry.	Rabbits.	Fish.	Shell-fish.	Oysters.
		Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Head		Lbs.	Bags.	
SLAUGHTER HOUSES.	Abattoir ..	151947	4120	17199	..	4515	..	..	..	..	..
	Back Castle Street ..	28465	1789	476	..	15	..	..	..	..	..
	Bevington Hill ..	29267	1851	260	..	..	..	..	..	..	..
	Benledi Street ..	..	..	..	..	540	..	..	..	..	..
	Copperas Hill ..	..	..	..	..	2523	..	..	..	..	..
	Cotter Street ..	1125	..	20	..	315	..	..	..	..	..
	Darnley Street ..	..	..	..	..	25	..	..	..	..	..
	Embleton Street ..	..	..	..	..	..	..	..	..	..	..
	Frederick Street ..	..	..	150	..	..	..	..	..	..	..
	Gelling Street ..	1272	172	..	..	..	..	..	..	..	..
	Hodson Street ..	..	..	15	..	454	..	..	..	..	..
	Peel Street ..	..	..	86	..	..	..	..	..	..	..
	Scotland Road ..	60	504	..	..	..	..	..	..	..	..
	Soho Street ..	..	..	..	..	180	..	..	..	..	..
	Upper Milk Street ..	400	..	..	..	330	..	..	..	..	..
MARKETS.	St. James' ..	..	..	..	..	10	..	..	..	..	..
	St. John's ..	389	43	42	..	16	36	149	119348	176	..
	St. Martin's ..	605	..	..	..	3431	..1	..	..	..	..
	Bramley Moore Dock ..	41120	..	..	..	..	..	..	..	..	..
	Brownlow Hill ..	..	..	4	..	..	..	..	..	..	..
	Cockspur Street ..	40	..	..	..	..	..	..	..	..	..
	Currie Street ..	..	..	..	..	..	..	..	..	1	..
	Canada Dock ..	3295	..	3150	..	240	..	..	..	..	..
	Christian Street ..	9	..	..	..	..	..	..	..	..	..
	Edgeware Street ..	231	..	..	..	..	..	..	..	..	..
	Gt. Charlotte Street ..	..	..	..	..	..	..	..	14479	..	..
	Great Homer Street ..	252*	..	4	..	..	..	..	..	..	..
	Hood Street ..	..	..	..	..	..	..	..	..	3	32000
	Kensington ..	7	..	..	..	..	..	..	..	..	..
	Linekiln Lane ..	94	..	..	..	..	..	..	..	..	..
OTHER PARTS.	London Road ..	10	..	..	..	..	..	..	..	..	..
	Mill Street ..	244	..	..	..	..	..	..	..	..	..
	Manesty Lane ..	..	..	..	..	..	..	..	3240	..	..
	Marybone ..	196	..	..	..	..	..	..	..	..	..
	Midghall Street ..	..	..	..	..	..	..	..	70	..	..
	Maddox Street ..	..	..	..	..	600	..	..	..	..	..
	Northumberland St. ...	7	..	..	..	..	..	..	..	..	..
	Naylor Street ..	..	..	..	..	356	..	..	..	..	..
	North Hill Street ..	80	..	..	..	..	..	..	..	..	..
	Netherfield Rd. South ..	5	..	..	..	..	..	..	..	..	..
	Pitt Street ..	21	..	..	..	..	..	..	300	..	..
	Portland Street ..	..	..	..	..	35	..	..	..	..	..
	Rose Street ..	..	..	..	..	..	..	..	14938	..	..
	Roe Street ..	..	..	..	..	..	..	84	5495	28	..
	Renshaw Street ..	..	..	30	..	..	..	..	..	..	..
	Richmond Row ..	16	..	..	..	..	..	..	..	..	..
	Soho Street ..	10	..	..	..	..	..	..	..	..	..
	Scotland Road ..	1154	..	..	..	..	..	..	..	..	..
	St. James' Place ..	10	..	..	..	..	..	..	..	..	..
	Scotland Place ..	110	..	100	..	..	..	..	..	..	..
	Stanhope Street ..	..	..	..	..	5	..	..	..	..	..
	Stanley Road ..	..	..	..	..	448	..	..	30	..	..
	Springfield Street ..	5	..	..	..	..	..	..	..	..	..
	Tithebarn St. (Station) ..	..	..	..	..	..	..	..	6720	..	..
	Upper Dawson Street ..	..	..	..	..	..	19	..	..	..	..
	Vauxhall Road ..	..	..	..	..	200	..	..	..	..	..
	Warwick Street ..	..	..	6	..	..	..	..	..	..	..
	Wm. Henry Street ..	60	..	..	..	..	..	..	..	..	..
	West Derby Road ..	5	..	..	..	..	..	..	..	..	..
Total		260511	8479	21542	..	14238	380	233	161620	208	32000

* This includes 45 lbs. of horse flesh .

	Tons.	cwts.	qrs.	lbs.
Meat—Equal to ..	136	1	0	18
Fish ..	73	9	3	8

Number of Visits to Slaughterhouses made by Meat Inspectors	..	.	..	14,856
„ Informations for Diseased Meat and Fish	..	..	..	58
„ Fined	..	..	..	52
„ Sent to Gaol	..	..	..	1
				<hr/>
Amount of Fines and Costs	..	..	..	£86 9 6

SMOTHERED AND INJURED CATTLE.

Beasts.	Sheep.	Pigs.	Number found good.	Number found bad.	Weight of Bad in pounds.
136	178	118	220	212	92,029

KNACKERS' YARDS RETURNS.

Horses Destroyed.	Asses Destroyed.	Other Animals Destroyed.
1,739	16	29

SHIPPON AND PIGGERY INSPECTION.

Number of Inspections of Shippons and Piggeries	898
„ Informations	9
„ Fined	8
Amount of Fines and Costs	£2 4 6

DAIRIES AND MILK SHOPS.

Number of Inspections of Dairies and Milk Shops	1,769
„ found Incorrect.. .. .	372
„ of Informations.. .. .	39
„ Fined	35
„ Acquitted and Withdrawn	4
Amount of Fines and Costs	£5 3 6

NUISANCES AND CONDITIONS PREJUDICIAL TO HEALTH.

Nuisances inspected, complained of by Inhabitants	4,717
„ Reported by District Officers	48,305
„ Notices issued.. .. .	30,242
Number of Informations	1,729
„ Fined	179
„ Magistrates' Orders to abate	635
„ Withdrawn and acquitted, the work being done	915
Amount of Fines and Costs	£69 3 0

REFERENCES TO OTHER DEPARTMENTS.

Referred to the Medical Officer.. .. .	*6,881
„ City Engineer	1,168
„ Building Surveyor	1,057
„ Water Engineer	5,282
„ Superintendent of Scavengers	2,006

* Chiefly school children from infected houses.

HOUSE TO HOUSE VISITATION.

Number of Inspections of Street Houses	17,875
„ Street Houses found Clean	17,277
„ „ „ Dirty	598
„ Apartments in Street Houses Examined	60,743
„ Inspections of Court Houses	4,453
„ Court Houses found Clean.. .. .	3,964
„ „ „ Dirty.. .. .	489
„ Apartments in Court Houses Examined.. .. .	12,964
„ Re-inspections of Dirty Houses	4,022
„ Total Number of Houses Examined	26,350

COURT AND PRIVY EXAMINATIONS.

Number of Visits to Courts and Alleys	122,036
„ Closets found Dirty, but Cleansed by Officer's Instruction	101,899
„ Informations.. .. .	333
„ Fined	280
Amount of Fines and Costs	£45 7 0

The changes in the method of dealing with the courts and alleys adopted last year have been continued and have been attended with very satisfactory results, both in ensuring constant cleanliness in the courts and alleys, and also economising the time of the inspector by employing it in the most efficient manner. The aim has been to keep the courts and alleys uniformly clean throughout the week, and with this view the district inspectors are instructed that every tenant in each court is in turn to be held responsible for the cleanliness of the court for a period of one week; the inspector records in his visiting book whose turn it is, and duly informs that tenant. Failing compliance with his requirements, an information is laid under a bye-law of the Local Sanitary Act.

The magistrate has rendered great help to the department by imposing a small fine in each case in which this action has become necessary. As a consequence there is a marked improvement in the condition of the courts, and also in the apparent willingness of the people to cleanse them.

CELLAR EXAMINATIONS.

Number of Inspections of Street Cellars	5633
„ Cellars used for Lumber, Coals, &c.	2585
„ „ Found empty	320
„ „ Illegally Occupied	183
„ „ Legally.. .. .	2545
„ Inspections of Court Cellars.. .. .	1030
„ Court Cellars used for Lumber, Coals, &c.	484
„ „ „ Found Empty	195
„ „ „ Illegally Occupied	26
„ „ „ Legally.. .. .	325
„ Cellars found Dirty	202
„ Cellar Notices Issued	220
„ „ Informations	39
„ Fined	34
„ Withdrawn	5
Amount of Fines and Costs	£3 14 0

WATER CLOSET CONVERSIONS.

Number of Notices	36
„ Certified	28
„ Constructed	30
„ of Informations	7
„ withdrawn, work being done	7

INFECTED AND DIRTY HOUSES.

1617	Infected Street Houses Inspected, containing	..	..	..	..	2263	cases.
263	„ Court „ „ „ „	..	..	..	..	306	„
35	„ Cellars „ „ „ „	..	..	..	..	40	„
	Number of Notices to Owners to Cleanse Infected Houses	..	..	..	..	1411	
	„ „ „ „ „ Dirty Houses	..	..	..	..	986	
	„ „ Occupiers to Whitewash Dirty Houses	..	..	..	..	368	
	„ „ Owners to Whitewash Exterior of Courts	..	..	..	..	1917	
	„ Informations against Infected and Dirty Houses	..	..	..	..	215	
	„ Fined .. .. .	..	..	..	..	27	
	„ Acquitted and Withdrawn .. .. .	..	..	..	..	188	
	Amount of Fines and Costs .. .. .	..	..	..	..	£8 11 0	

REMOVALS TO MORTUARIES ON MEDICAL CERTIFICATES OR ON MAGISTRATES' ORDERS.

Bodies Removed to Mortuaries.		
Smithdown Road.	St. Martin's.	Mill Road.
1	22	1

PROCEEDINGS FOR EXCESSIVE SMOKE.

Number of Town Notices	...	...	..	...	...	...	...	436
„ River „	...	...	...	..	...	...	...	276
„ Informations against Manufactories	...	...	...	...	...	...	...	403
„ „ Steamers	...	...	...	..	...	...	...	277
„ Fined ... ..	...	...	..	...	...	...	...	660
„ Acquitted or Withdrawn	...	...	...	...	...	...	...	20
Amount of Fines and Costs	...	...	...	...	...	...	£621 9 0	

MARGARINE ACT.

Number of Visits to Shops	.	..	..	..	..	..	3362
„ Samples obtained	.	.	..	..	..	..	159
„ „ Analysed	..	..	..	..	..	..	3
„ Informations	..	..	.	..	..	..	164
„ Fined .. ..	.	..	.	..	..	..	152
Amount of Fines and Costs	.	..	.	..	..	..	£100 19 0

PROCEEDINGS UNDER THE SALE OF FOOD AND DRUGS ACT.

No. of Samples.	Description of Samples.	Results of Analysis.
511	New Milk	55 were found to be adulterated.
117	Skimmed Milk ..	29 " " " "
40	Cream of Tartar ..	7 " " " "
33	Pepper	6 " " " "
31	Mustard	3 " " " "
26	Yeast	1 was " " "
25	Cayenne Pepper ..	Found to be genuine.
22	Butter	4 were found to be adulterated.
21	Arrowroot	Found to be genuine.
21	Preserved Peas ..	18 were found to be adulterated.
20	Ground Ginger ..	Found to be genuine.
16	Lard	" " "
10	Tea	" " "
10	Whiskey	" " "
9	Olive Oil	" " "
8	Coffee	4 were found to be adulterated.
7	Rum	Found to be genuine.
5	Jam	" " "
5	Vinegar	3 were found to be adulterated.
5	Gin	Found to be genuine.
5	Flour	" " "
4	Bread	" " "
3	Condensed Milk ..	" " "
3	Chewing Gum ..	2 were found to be adulterated.
3	French Capers ..	Found to be genuine.
2	Linseed Meal ..	" " "
2	Haricot Beans ..	2 were found to be adulterated.
2	Honey	1 was " " "
2	Pickles	Found to be genuine.
1	Bread and Butter	" " "
1	Sugar Peas and Beans	" " "
1	Sweet Balls ..	" " "
1	Sweet Pea ..	" " "
1	Chocolate Creams	" " adulterated.
1	Corn Flour ..	" " genuine.
1	Tartaric Acid ..	" " "
1	Lime Juice Cordial	" " "
1	Olives	" " "
1	Crystallized Fruits	" " "
1	Sugar Almonds ..	" " "
1	Cream	" " "
1	Sugar	" " "
Total 981		

Number of Informations	..	..	..	..	..	75
„ Fined	..	..	..	..	..	65
Acquitted or Withdrawn	..	..	..	..	..	10
Amount of Fines and Costs	..					..£97 19 0

REFUSING TO SELL SAMPLES FOR ANALYSIS.

No. of Informations	..	..	..	..	..	8
„ Fined	..	..	..	..	..	7
Acquitted or Withdrawn	..	..	..	..	..	1
Amount of Fines and Costs	..					..£10 1 6

SCAVENGING OPERATIONS.

Mr. Richard S. Reynolds, M.R.C.V.S., the Veterinary Superintendent, has charge of the Scavenging Staff, and has kindly supplied the following tables :—

It is a matter of much regret that no attempt is made for the more frequent removal of domestic refuse, instead of allowing it to accumulate and ferment in ashpits immediately adjacent to dwelling-houses. When any refuse of this kind is deposited in unused quarries or claypits, representations are immediately made of its noxious and offensive character, and the Health Committee has been obliged to discontinue this method of disposal.

So far as means will permit, the work of our Scavenging Staff has been well and satisfactorily performed, and many thanks are due to Mr. Reynolds for his direction and supervision of this important department.

Year 1889.

TABLE No. 1.

NIGHT SERVICE FOR EMPTYING MIDDENS, COURT ASHPITS, AND SOME OFFICE ASHPITS.

Notices Received.	Middens, &c., Emptied.	Loads of Nightsoil and Ashes.					Nightly average Working Staff.				Analysis of Work.		Average contents of each Midden.	
		Number Removed.			Where Deposited.		Midden Men.	Wharf Men.	Carts.	Horses.	Loads per Man per Night.	Loads per Cart per Night.	Cart Loads.	
		Manure.	Ashes.	Total.	Chisen- hole street	Sandhills.								River Craft Dock.
741	3,205	7	4,407	4,414	3,916	7	491	4·6	1·	3·2	3·2	2·9	4·3	1·3

TABLE No. 2.

SERVICE FOR THE COLLECTION AND REMOVAL OF DRY ASHPIT ASHES.

Notices Received.	Ashpits Emptied.	Loads of Dry Ashes.					Average Daily Working Staff.				Analysis of Work.		Average contents of each Ashpit. Cart Loads.			
		Number Removed.	Where Deposited.			Chisen- hole Street	Sandhills.	River Craft Dock.	Waver- tree.	Rubbish Tips, &c.	Ashpit Men.	Carts and Wagons.		Horses.	Loads per Man per Day.	Loads per Cart per Day.
2,455	422,676	70,005	19,496	20,035	26,319	340	3,815	80·8	61·5	61·9	2·7	3·6	·16			

TABLE No. 3.

SERVICE FOR THE COLLECTION AND REMOVAL OF BELL
CART ASHES.

Loads Removed	Where Deposited.				Carts Employed.
	Chisenhale Street.	Sandhills.	River Craft Dock.	Rubbish Tips	
16,789	8,520	2,182	6,087	..	15·4

TABLE No. 4.

SERVICE FOR FLUSHING AND CLEANSING TROUGH WATER
CLOSETS.

Number of Urinals.	Number of Trough Water Closets.	Average Working Staff.	
		Trough W. C. Men.	Urinal Men.
235—618 Stalls.	3,020	43·	10·6

TABLE No. 5.

SERVICE FOR CLEANSING, COLLECTION, AND REMOVAL OF REFUSE FROM STREETS, COURTS, PASSAGES, &c.

Loads of Street Sweepings Removed.						Average Daily Staff.				Average Number of Loads Removed Daily per Cart.	
Total Number Removed.	Where Deposited.					Scavengers.	Sweeping Machines.		Carts.		Horses.
	Chisenhale Street.	Sandhills.	Wavertree.	River Craft Dock.	Refuse on Tips and New Macadam.		Day.	Night.			
85,218	49,031	12,477	4,570	18,170	970	249·6	3·9	15·	63·3	82·2	4·3

TABLE No. 6.
CLEANSING AND REMOVAL OF REFUSE FROM STREETS, COURTS, AND PASSAGES ON SUNDAYS.

Loads of Street Sweepings.									
Removed.				Where Deposited.				Average Daily Staff.	
Manure.	Ashes.	Refuse.	Total.	Chisenhale St.		Sandhills.		River Craft Dock.	
				Manure.	Refuse.	Manure.	Refuse.	Manure.	Refuse.
				1,576	265	243	352	254	601
2,073	...	1,218	3,291	1,576	265	243	352	254	601
								Men.	Horses.
								140·5	24·2

TABLE No. 7.
SERVICE FOR STREET WATERING.

SALT WATER.									
FRESH WATER.					SALT WATER.				
Number of Days on which Carts were out.	Total Number of Loads Distributed.			Average No. of Loads Distributed Daily per Cart.	Average Daily Staff employed during the Season.			Number of Days on which Carts were out.	Average No. of Loads Distributed Daily per Cart.
	Large.		Small.		Watermen.		Carts and Horses.		
	Day.	Night.	Day.		Day.	Night.	Day.		
117	85275	5,412	59	26·2	20·2	29·5	26·2	117	26·2
								10,898	1,423
								821	1,423
								5·3	4·4
								22·6	22·6

TABLE No. 8.
REMOVAL OF GARBAGE FROM ABATTOIR.

Loads Removed.	Where Deposited.			Carts employed.
	Chisenhale Street.	Sand- hills.	River Craft Dock.	
1,374	984	..	390	1·1

TABLE No. 9.
DESPATCHES OF MANURE AND REFUSE.

	Saleable Manure.			Unsaleable Refuse.					Average Daily Staff.				
	Night Soil.	Sweepings.	Mixture.	Total.	Contractors.	Farmers.	Depôts.	Sea	Total.	Grand Total in Tons.	Inspectors and Foremen.	Labourers.	
Chisenhale St., by Flats..	..	4,272	6,384	10,656	..	49,104	96	..	49,200	59,856	}	23·5	
Sandhills, do.	4,752	6,144	..	10,896	10,896			
Do., by Rail	5,066	..	5,066	..	9,987	..	..	9,989	15,055	}	2·	
Wavertree do.	3,464	..	3,464	..	464	..	..	464	3,928			
Chisenhale Street and ..	}	2,900	2,900	2,900	}	8·	
Sandhills, <i>via</i> Stanley D'k		..	..	..	..	..	..	72,580	72,580	72,580		
per "Alpha"	1,480	1,480			9,396
per "Beta"		4,268	3,628	7,896	60,030	60,030			60,030
River Craft Dock.....	5,685	5,685	5,685	}	6·6	
Do., per "Alpha"			
Do., per "Beta"	}	41·8	
	..	17,070	10,012	27,082	..	65,789	6,240	141,195	213,224	240,306			2	81·9

TABLE No. 12.
Daily Consumption of Provender and Weekly Cost per Horse per Week.
Food and Litter.

Days Keep.	Total Consumption of Food.		Daily Average Consumption per Horse.	Weekly Cost of each Horse's Keep.
90,287 Horses of Health Committee.	Corn	10,628 centals.	Lbs. 11·77	
	Beans and Peas ..	2,958 "	3·27	
	Oats	262 "	·29	
	Bran	1,037 "	1·14	Gross weekly cost .. 10s. 6d.
	Meal	213 "	} .59	Credit value of
	Linseed.....	158 sacks.		Manure 1s. 1d.
	Roots }			
	Grass..... }			
	Hay	2,320 cwts.	2·88	9s. 5d.
	Straw	8,849 "	11·01	
	Peat Moss	4,586 "	4·58	
	Sawdust	1,132 "	1·40	
		1,460 Sacks }	·016	

TABLE

DURING THE YEAR 1889, IN THE URBAN SANITARY DISTRICT OF LIVERPOOL,
ALSO THE POPULATION OF SUCH LOCALITIES

(I.) NAMES OF LOCALITIES adopted for the purpose of these Statistics ; public institutions being shown as separate localities.	POPULATION AT ALL AGES.			MORTALITY FROM ALL CAUSES, AT SUBJOINED AGES.							
	Census 1881.	Estimated to middle of 1889.	Registered Births.		At all Ages.	Under 1 Year.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 60.	60 and upwards.
WARDS.											
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	
Scotland	70606	63076	2174	1482	473	380	72	44	360	153	
Vauxhall	15382	12427	304	224	70	58	10	5	57	24	
St. Paul's and Exchange	19937	16646	364	330	89	82	19	5	94	41	
St. Anne's and Lime Street	36688	32852	788	636	181	142	26	17	186	84	
Castle Street and St. Peter's	6644	5491	102	100	17	15	8	3	38	19	
Pitt Street and Great George	18910	15337	436	383	86	91	10	12	120	64	
Rodney Street and Abercromby	41997	37711	1020	578	161	90	19	26	162	120	
Everton	109812	121857	3968	2184	711	456	122	78	483	334	
Kirkdale	58145	85855	2348	1233	360	266	86	40	330	151	
West Derby	67727	81701	2565	1401	430	314	77	59	317	204	
The Toxteths	106660	133609	3607	2219	618	498	132	81	558	332	
(II.) Public Institutions. { Workhouses & Hospitals .. ..	..	..	..	2277	124	209	158	173	1136	477	
Totals	552508	606562	17676	13047	3320	2601	739	543	3841	2000	

Deaths occurring outside the division or district among persons belonging thereto	148	4	12	1	3	52	76
Deaths occurring within the division or district among persons not belonging thereto	221	9	10	14	33	114	41

DEATHS

CLASSIFIED ACCORDING TO DISEASES, AGES, AND LOCALITIES, AND SHOWING THE BIRTHS THEREIN DURING THE YEAR.

MORTALITY FROM SUBJOINED CAUSES, DISTINGUISHING DEATHS OF CHILDREN UNDER FIVE YEARS OF AGE.																						
	Smallpox.	Measles.	Scarlatina.	Diphtheria.	Croup (not 'spasmodic')	Whooping Cough.	Continued Fevers.				Diarrhoea and Dysentery.	Cholera.	Rheumatic Fever.	Erysipelas.	Pyæmia.	Puerperal Fever.	Ague.	Phthisis.	Bronchitis, Pneumonia, and Pleurisy.	Heart Disease.	Injuries.	All Other Diseases.
	13.	14.	15.	16.	17.	18.	Typhus.	Enteric or Typhoid	Other or Doubtful.	21.	22.	23.	24.	25.	26.	27.	28.	29.	30.	31.	32.	33.
5	..	59	19	4	12	41	..	1	..	70	..	..	..	..	1	..	..	7	201	..	51	387
wards	..	3	7	..	2	..	1	13	..	8	1	2	4	1	1	1	1	84	211	56	35	199
5	..	14	1	2	..	7	..	..	..	11	1	..	..	..	..	..	..	..	21	1	5	65
wards	..	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	15	20	11	5	43
5	..	20	4	1	3	8	..	1	..	10	..	..	..	..	..	..	..	..	25	..	5	94
wards	..	3	1	..	..	..	1	6	..	..	..	1	1	1	..	..	..	20	41	16	8	60
5	..	28	1	1	8	16	..	..	..	21	..	..	..	..	..	..	..	3	67	..	19	159
wards	..	1	1	..	..	1	..	6	..	..	..	..	8	..	..	..	..	44	89	27	11	125
5	..	3	2	..	..	3	..	..	..	3	..	..	..	..	..	..	..	..	5	..	1	15
wards	2	1	..	..	..	..	..	..	..	..	..	1	..	..	..	7	8	12	5	32
5	..	17	3	2	3	10	..	..	..	21	..	..	..	..	..	..	..	2	26	..	7	86
wards	2	..	1	..	..	4	..	3	..	2	..	..	..	1	1	23	51	27	6	86
5	..	21	4	1	3	18	..	..	..	20	..	1	1	1	..	..	..	1	45	..	8	127
wards	2	1	1	..	..	4	..	3	..	1	2	..	..	..	..	44	54	49	5	161
5	..	52	23	5	25	78	..	1	..	137	3	..	2	..	..	..	..	7	255	2	36	541
wards	..	7	10	1	2	3	4	15	..	6	..	3	1	1	4	..	..	161	246	88	26	439
5	..	19	24	6	20	40	..	4	..	59	2	..	3	..	..	..	..	6	113	..	18	312
wards	16	..	2	3	2	11	..	6	..	..	1	1	1	..	..	105	130	63	13	253
5	..	42	38	7	17	37	..	5	..	88	..	..	1	..	..	..	..	5	156	2	18	328
wards	..	7	17	5	2	2	1	15	..	3	..	5	..	..	1	..	..	138	125	73	11	252
5	..	141	52	8	23	56	1	5	..	79	1	..	..	..	..	..	..	3	179	..	37	531
wards	1	10	42	..	3	5	2	14	..	11	1	13	..	1	2	1	1	162	196	150	20	469
5	..	36	47	11	2	13	..	5	..	9	..	..	..	..	..	..	..	..	43	..	26	141
wards	..	1	34	1	..	1	33	57	..	13	..	6	2	4	..	1	1	290	491	131	153	726
5	..	452	218	48	116	327	1	22	..	528	7	1	7	2	..	..	..	34	1136	5	231	2786
wards	1	33	134	9	13	15	44	145	..	53	2	42	12	9	9	4	4	1093	1662	703	298	2845
5	3	..	..	..	1	..	..	..	..	..	..	..	..	2	..	..	10
wards	1	..	..	..	..	..	..	..	17	45	5	1	63
5	2	..	..	..	..	2	..	2	..	2	..	1	..	1	1	26	2	18	6	7
wards	1	..	..	..	..	4	..	2	..	2	..	1	..	1	1	26	20	18	20	107

TABLE OF NEW CASES OF SICKNESS,

*Coming to the knowledge of the Medical Officer of Health during the year 1889,
in the Urban Sanitary District of Liverpool, classified according to*

LOCALITIES and DISEASES.

NAMES OF LOCALITIES. WARDS.	NEW CASES OF SICKNESS IN PERSONS BELONGING TO THE DISTRICT.						
	Small Pox.	Measles.	Scarlatina.	Diphtheria.	CONTINUED FEVERS.		
					Typhus.	Enteric or Typhoid.	Other, or Doubtful.
Scotland .....	..	295	119	8	78	88	8
Vauxhall .....	..	98	14	3	..	14	1
St. Paul's and Exchange..	..	135	45	3	3	35	2
St. Anne's and Lime Street .....	..	150	37	7	14	66	8
Castle Street and St. Peter's .....	..	8	17	1	..	2	1
Pitt Street and Great George .....	..	90	46	5	1	22	..
Rodney Street and Abercromby ..	..	222	107	7	1	31	3
Everton .....	..	421	336	21	21	110	13
Kirkdale.....	..	87	188	11	16	71	2
West Derby .....	..	486	398	27	10	111	1
The Toxteths.....	1	1147	517	26	11	105	5
Emigrants, Seamen, and others admitted to Hospital whose residences were unknown	8	36	8	3	3	15	18
TOTALS.....	9	3175	1832	122	158	670	62

PHILIP'S PLAN OF LIVERPOOL

MORTALITY MAP OF FEVER IN 1889.

The RED Dots Mark the Number of Deaths from Typhoid, and the
BLUE Dots the Number from Typhus.
(The Deaths occurring in Hospitals have been transferred to the streets from whence
the Patients were removed.)

SCALE OF 1/4 MILE
0 100 200 300 400 500 600 700 800 900 Yards
+ Furlongs



R I V E R M E R S E Y

- REFERENCE to the WARDS.
- 1 Everton & Kirkdale
 - 2 Scotland
 - 3 Vauxhall
 - 4 St. Paul's
 - 5 Exchange
 - 6 Castle street
 - 7 St. Peter's
 - 8 Pitt street
 - 9 Great George
 - 10 Rodney street
 - 11 Abercromby
 - 12 Lime street
 - 13 St. Ann's street
 - 14 West Derby
 - 15 South Toxteth
 - 16 North Toxteth



DURING THE YEAR ENDING SATURDAY, 28TH DECEMBER, 1889.

INQUESTS.

